BUILDING TRADITIONS IN BUNDELKHAND
1000 AD. - 1700 AD.

ABSTRACT

THESIS

SUBMITTED FOR THE AWARD OF THE DEGREE OF

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IN

HISTORY

BY

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ABSTRACT

The present study is primarily devoted to the building activities in the region of Bundelkhand under the Chandela and the Bundela rulers whose rule spanned between c.900 and c.1750. Both have left innumerable edifices which are standing to offer witness about their grandeur in the field of building sector. The Chandela rulers earned reputation as one of great builders in early medieval India. They took exemplary interest in the construction of temples, forts and waterbodies such as dams and tanks. The most precious testimony of their existence which they have handed down posterity is the amazing collection of architectural works in Khajuraho. Besides, the shrines constructed by them survived in Mahoba, Kalinjar, Ajaigarh and other places. They also patronised the people of other faiths to construct religious establishments. Consequently, large numbers of Jain Temples came into existence.

In addition to shrine constructions, they built innumerable forts in their long span of rule over the region. The centres of their power were generally fortified towns constructed on rocky mounds, which were considered impregnable. Kalinjar was one of the strongest bastions in existence.

Similarly, they took keen interest in the erection of waterbodies. The region of Bundelkhand had been water deficit zone because of rocky terrain therefore; they had developed a network of rainwater harvesting structures to tap every drop of water such as dams, tanks and stepwells. Thus, they had transformed the area into water sufficient zone. Hence, they had earned the designation of the 'tank builders'. On this basis we may call them a great 'hydraulic rulers.'

The tradition in the building construction sector established by the Chandelas was continued by their successors the Bundelas. The construction work was initiated after shifting of capital form Garhkundar to Orchha in 1531 by Rudra Pratap (1501-39). The foundation of palace at Orchha was laid down in the same year by him. But his sudden demise in a tragic incident brought a temporary halt in the construction but restarted by his son Bharti Chand (1531- 54) and completed the palace in 1539. Besides this, Raj Mahal and Rani Mahal came into existence. Then his successor Madhukar Shah (1554-92) built the Chaturbhuj temple, Jugal Kishor temple,

Chandrasakchhi temple and Chitrakut temple. Besides these religious structures, he laid down numerous secular buildings such as gardens and a *ghat* on the river Betwa. After his death, his second son Bir Singh Dev brought laureate to Orchha in politics as well as in the construction sector. He was the greatest builder in the Bundela dynasty. He is said to have initiated construction of 52 buildings on the occasion of his 52nd birthday. He erected both religious as well as secular edifies. The prominent among religious shrines were Lakshmi Narayan temple, Dhum Shivalaya at Orchha, Vishwesar at Kashi, Bankhandi Mahadev, Madan Bihari temple (Brindawan) and Keshav Dev temple at Mathura. Secular buildings include forts, palaces, *havelis,* tanks, dams stepwells, bridges gardens and others. The palaces and forts include Jahagir Mahal, Phool Bagh, Birsingh Dev Mahal or Satkhanda Mahal at Datia and forts at Jhansi, Dinara, Dhamoni, Karera and Garhmau. Bir Sagar, Dev Sagar, Nandanwara and Vir Sarovar can be counted among dams. He also took keen interest in laying down of gardens at Orchha and other places. The demise of Bir Singh Dev brought halt in the building activities. His successors could not concentrate in this sector because of their unfriendly relations with the Mughals. Fresh spate of building activities were started after the establishment of rule at Panna under Maharaja Chhatrasal. Large number of forts, palaces, cenotaphs, temples and waterbodies came into existence.

The purpose of my study is to highlight the building activities under the Chandelas and the Bundelas. An attempt has been made to cover major edifices came into existence between c.900 and c.1750. The task is accomplished in the following chapters.

First chapter deals with the nomenclature of the region prior to Bundelkhand. Then the geography of the area which was ruled both by the Chandelas and the Bundelas. A brief history of the Chandelas on the basis of contemporary inscriptions is traced from the earliest period. The contribution of individual Chandela ruler from its first ruler Nanuka (first quarter of the 9th century) upto Vir Varaman (c.1250-86) is briefly sketched.

The emergence of the Bundelas coincides with the establishment of the capital of Orchha in 1531. Rudra Pratap laid the foundation of the capital. But he could not

live to see the emergence of the place. Bharti Chandra (1531-54) succeeded him and led victorious campaigns against adversaries and expanded his territory and occupied the area between Dhasan and Sindh. Further territorial expansion was carried out by Madhukar Shah (1554-92). His military campaigns brought him in conflict with the Mughal emperor Akbar but subsequently he accepted the Mughal suzerainty in 1577. His policy of maintaining intimate relations was followed by his son Ram Shah but his younger brother Bir Singh Dev, then *Jagirdar* of Baroni, became a great headache for him. Not only this, Bir Singh Dev used to attack Mughal territories and consequently, he had incurred anger of the Mughal emperor Akbar. But he befriended the Mughal prince Jahangir and on his advice he murdered Abul Fazl in 1602. Though this crime further angered Akbar but he earned the confidence of the Mughal prince.

The accession of Jahangir brought good fortunes for Bir Sing Dev. He was given the *gaddi* of Orchha by dethroning his elder brother Ram Shah. The latter was given Chanderi instead.

The Bundela chief with the tacit support of the mughal emperor expands territory and consolidated his position by suppressing his adversaries in the state.

He undertook construction work after the consolidation of his position. His building activities were highlighted. His period could be characterized as the golden period in the field of construction sector.

Then the history of the region is described under his successors Jujhar Singh (1627-35) Pahar Singh (161-53), Sujan Singh (1653-72) Indramani (1662-75), Jaswant Singh (1673-84) and Udot Singh (1689-1736). The demise of Bir Singh Dev, in real terms sealed the fate of the Bundelas at Orchha. No significant work was done in the field of construction sector. Then the emergence of another branch of the Bundelas at Panna under Chhatarsal is described briefly.

The chapter second is partitioned in two sections. In the first part forts find place while palaces are discussed in the second. Both the buildings were meant for members of the royal family. Generally, the characteristics of both the edifices are combined in one.

The medieval rulers of India constructed innumerable forts and fortress palaces to defend their territorial possessions from their adversaries and to demonstrate their sovereignty. These structures were built keeping the contemporary war technology and tactics in mind. The rulers made efforts to build impregnable and inaccessible forts to secure their sovereignty and territorial possessions. In fact, the forts had virtually became a symbol of prestige and the royal propotence.

In the second chapter, The forts built by the Chandelas and the Bundelas are taken up in this section. The former constructed large number of bastions in their empire but here we have given the profile of three namely Kalinjar, Ajaigarh and Maniyagarh. All the three are strong and impregnable.

The celebrated hill fort Kalinjar is located in *tehsil* Badausa, 56 km south-east of the district Banda, Uttar Pradesh. It is located on an isolated flat-topped hill of the Vindhya range which rises above 800-900 feet high above the plain. It is fortified by rampart nearly four miles in circuit and constructed of large blocks of stones. The height of the fort is quite inordinary and its access was always difficult to the adversaries.

It possesses two entrance gates and followed by another six gates. Latter entrances were planned in such a way that at every point the advancing of the enemy's army could be checked or repulsed. The planning of the gates was according to the military tactics.

After describing its defense mechanism, waterbodies which are also important part of the bastion. They determine its strength in time of war and onslaught by the enemy. Thus the invasions faced by it are described.

Ajaigarh is another fort which occupies important place in Bundelkhand located 35 km from the district Panna and 33 km to the south-west of Kalinjar. The fort crowns on a flat spur of the Vindhya range. It height is equal to that of Kalinjar. It is said to have been erected by the Chandela ruler Raja Jaishakti in 830. The builders raised this citadel on a very high hill and built very strong walls to withstand the onslaughts of the enemies and to use it as an important stronghold in the region.

From the strategic point it is one of the well-fortified citadel. Its fortification wall is equipped with sixteen bastions, which are located at strategic positions. Then the waterbodies within the fort is described which are the lifeline of any fort.

Next in importance is Maniyagarh located on the left side of the River Ken in the modern city Rajgarh. It receives its name from the hill 'Maniya' on which it perches. It was built by the Chandela ruler Yasho Varma (AD 925-40). It is 1200 above the sea level and 15 km in circumference. Cunningham considers it older as well as stronger than Kalinjar and Ajaigarh. Besides the structures, the Chandela rulers built more forts which are mentioned in table.

The Bundela rulers also erected numerous fort-palaces in different parts of Bundelkhand. Prominent among them are Orchha fort or Jahangir Mahal, Datia fort or Bir Singh Dev Mahal, Barauni fort and many others. In this section the architecture of the Orchha fort, Bir Singh Dev palace and Barauni forts are discussed. Besides, the fort –palaces built in later period such as Kul Pahar, Prithvipur and Rajnagar- also find place.

The temples constructed by the Chandelas and the Bundelas are discussed in the chapter fifth . The former had established a strong tradition in the field of temple construction. Their construction is highlighted. No doubt the group of temples at Khajaraho made them immortal but there are others too which were erected by them at various places such as Mahoba, Makarbai and Ajaigarh. Hence, after a brief sketch of the former shrines, lesser known temples are assigned more space. Their location and architectural features are underlined. Some temples are discussed and photographed first time namely, Makarbai, Ratneshwar (in village Urwara), Sijahari, temples at village Dauni and many more. From our survey we have attempted to show that the temple activities of the Chandelas were widespread.

The Bundela rulers followed their predecessor Chandelas. The temples constructed by them are catalogued here. Numerous shrines were erected by them at Orchha and elsewhere namely, Ram Raja temple, Chaturbhuj temple and Laxmi temple. The major architectural features of these shrines are underlined. They are quite magnificent but they could not surpass in numbers as well as from the architectural point of view.

The chapter six, deals with the cenotaphs of the rulers of Bundelkhand. The basic idea behind the construction of the *chhatris* in the memory of the deceased is to provide permanence to his name. It appears that the erection of the memorial of the deceased assumed the status of those of the successors or his nears and dears. This is the reason that we find the cenotaph of every deceased ruler raised by his successor. The purpose behind the raising the funeral monument appears to have create an aura around both the deceased as well as the living ruler.

In fact, these monuments were raised to cherish the memory of the rulers and their deed so as to remind their successors and future generations of their glorious acts. The tradition of commemoration has produced a variety of monuments of architecture in different periods. Moreover, its appears that during the 16^{th} - 18^{th} centuries, the construction of cenotaphs became the part and parcel of the building activities of the state.

No traces of the memorials of the Chandela rulers are found. But these structures of their successor rulers, the Bundelas are available in Orchha, Chanderi, Datia, Panna and Chhatarpur.

This chapter incorporates the *chattris* at Orchha, Datia and Panna. The architectural styles and their decoration in the form of sculptures and paintings are highlighted. Ground plan of each monument with measurement is given at the end of each structure.

The houses of nobles, courtiers and the rich people are discussed in chapter third. These were known as the *havelis* and the *kothis*. The study of these dwellings is divided under two headings: one, mansions within the fort complex and two, *havelis* outside the fort complex. It is believed that these elegant and marvelous edifices were erected under the rulers patronage particularly located in the premises of the fort.

The fashion of construction of *havelis/kothis* in Bundelkhand was started in the sixteenth century by the members of the aristocracy. Their intention behind the erection of those palatial buildings was two pronged: one, to differentiate from the houses of common man and two, to demonstrate their life style and their association with royal family.

In this chapter the *Dauji-ki-kothi, Bakas Rai-ki kothi, Himma Hamir- ki-kothi, Narayan Das Khare-ki kothi, Kirpa Ram gaur-ki-haveli,* and *Noneju-ki-haveli* are discussed. Their architectural characteristics under the headings –façade, entrance gate and courtyard, are described. Besides this, measurement of each part is recorded and given in the table. Documentation in the form of photographs of important parts of the structures is made. Ground plan of these mansions are prepared and put at proper place.

In the chapter eight, on dams, it is emphasized that the tradition of conservation, storage and harvesting of water is as ancient as human civilization. A wide variety of engineering and water related systems were developed at different geographical locations over different periods. The 'great Bath' built during the circa 3rd to 2nd millennia BC at Mohanjodaro demonstrates a high degree of hydraulic engineering skills. Similarly, the people at Dholavira (Gujrat) developed a unique and complex system for collecting and storing rain-water within several reservoirs. Through these examples an attempt has been made to highlight the techniques of water harvesting and conservation in pre-historical period.

Kautilya offers information about harvesting systems prevalent during his times. The Mauryan emperors took keen interest in the harvesting of rain-water. The Sudarshan lake in Girnar in Gujrat was the result of their efforts. My intention to cite these examples is to demonstrate that the people had knowledge about harvesting of rain water which passed through generation to generation.

The credit goes to Raja Bhoj of Dhar who constructed largest known artificial lake of India in the middle of the 11th century at Bhojpur near Bhopal. This lake was created by raising a vast embankment across two hill. In true sense it was a dam.

The inscriptions, literary sources and the archaeological data emphasize India's rich, technological excellent and varied hydraulic tradition. The Gond rulers of central India developed a complex network of irrigation and water management systems.

This strong tradition of water harvesting and management had greatly influenced the rulers of Bundelkhand. Their efforts in creating lakes are highlighted in

this chapter. The rulers faced difficulties in this hilly and rocky region. Rainwater flows very quickly therefore percolation was quite low. Above all poor rainfall further multiplied problems.

The Chandela rulers earned name and fame in the field of harvesting and conservation of rain water. They were considered as the great dam builders. They built dams at their capital city Mahoba such as, Kirat Sagar, Rahila Sagar, Vijay Sagar, Madan Sagar and Kalyan Sagar. The names of their builders along with their measurement and ground plan are given. Vast agricultural fields were irrigated by these waterbodies.

The construction of hydraulic work was continued under the Bundelas. Among them Bir Singh Dev earned name as the greatest dam builder. He built three big dams namely, Bir Sagar, Singh Sagar and Dev Sagar. The Bir Sagar is located in village Prithvipur in district Tikamgarh. Formerly, it was in *pargana* Orchha itself. It was 82 mts in length while 11.50 mts in width. This gets appreciation from the Mughal emperor Shah Jahan. Singh Sagar is located in the vicinity of Garh Kundar, the former capital of the Bundelas. Three motives behind its construction are underlined one, protection of fact from the flooding two, the conservation of water for irrigation and domestics purposes and last raising of water table of surrounding areas. Dev Sagar is in the district Shivpuri. It became popular as the Surai Ghat in the area. The embankment wall of this structure is "L" shape which is quite unique. Besides, this it is the longest of all and has a support of 70.50 mts. retaining wall. Detailed measurement of each section with ground plan is given at the end of each water monument.

The dams constructed during the time of Bir Singh Dev were gigantic in size and majestic in beauty. They were also adavanced from the point of view of technology.

As it is said about the geography and topography of the region in the chapter eight, on Dams. It is true that both the Chandelas and the Bundelas accepted the challenge thrown by the geography. No doubt, that the region was enormously hilly and rocky with a deep land gradient hence water flows quickly. The rate of absorption

is quite low. Therefore, there was the deep water table and low water resource. The less rainfall further multiplied the woes of the region.

The answer of these combined problems was appropriately given by the Chandelas and Bundelas by excavating tanks almost in every locality which is witnessed by the extant structures.

Mostly, three terms were employed for the tank namely *tadag*, *pushkarni* and *talab*. The talab is combination of two words that is *tal* and *aab*. The farmer means depression in plain while the latter stands for water. The space for the inlet was left open through which water comes and collected in the excavated site.

Further the difference between the dam and tank is made. In the former body the passage between two hills was blocked by erecting embankment wall while the tank was in a natural depression.

In chapter nine, The characteristics of the tanks of Datia, Khajuraho, Panna and Charkhari are underlined. The beauty of these tanks was their interlinking with each other. In this description the planning and lay out of these waterbodies is highlighted. This is shown that these waterbodies were dug in descending order. First tank was excavated at comparatively higher plain and then others dug out in succession in lower sites. This interlinking was called as the chain (*sankal*) of tanks. This was certainly an ingenious engineering skill which was adopted by hydraulic engineers of the region.

Besides tanks, a different kind of waterbody was detected known as the *chaupras*. The water monument is square in shape therefore designated so. Five such water structures at Khajuraho , Mahoba, Akauna , Panna and Orchha are described.

The construction of stepwell was an important part of the building activities. In chapter ten the stepwells raised both by the Chnadelas and the Bundelas are discussed. This kind of water structure was constructed to tap underground as well as rain-water. The waterbodies found in our survey are divided into seven categories. This categorization is made on the basis of their location: one, connected to shrine two, located in garden and orchard three, within or at the edge of a village four, on the highway and caravan routes five, in the middle of an agricultural field or on the fringe

of inhabited areas and agricultural field six, as part of residential complex of a noble and last, within the fort and royal palace.

The position of the stepwells itself determine the purpose of its construction. Therefore, extant structures are studied from this perspective. We have taken up stepwells individually and discussed it from architectural as well as its functional point of view. Following stepwells are discussed in detail: *Dhabe wali bawri*, *Chhardwari-ki-baoli*, *Gundrai ki booli*, *baoli* in front of Laxami Mandir, *baoli* in front of *Noneju-ki-Haveli*, *Lotan baoli* and *baoli* at Datia.

The point of priority for the Bundela rulers is brought out in this chapter. One important point is also underlined here about the concern of the Bundela rulers for the people of the capital city Orchha. They undertook the project of construction of water structures in and around the newly founded capital Orchha. This is confirmed from the extant water structures in vicinity of Orchha. Thus the Bundela rulers made sufficient provisions of water supply both for drinking as well as irrigating vast agricultural fields.

Bundelkhand contains rivers, numerous rivulets and *nallah*s originating from hills and rocks. The need of bridges arose when rivers and streams immobilized marching armies or movements of the royal entourage or to approach forts and palaces built on inlands created by rivers. There is a possibility that some bridges were built on rivers or streams to develop state highways for the use of trading caravans or pedestrians.

In the chapter 9th an attempt has been made to describe the three bridges built in and around Orchha besides one in the Kalinjar fort and another in the Bir Singh Dev Mahal at Datia.

All the three bridges in Orchha are of stone. These are: One, on Betwa connecting the fort built by Bir Singh Dev (1605-27) two, second is also on the same river and the third is located on the Jamni river. It is on the Orchha –Prithipur road.

In addition to these bridges, we chanced to see two more structures –one in the fort of Kalinjar and another in the Bir Sigh Dev at Datia. The former is in the form of the inlet connected to a tank. While the bridge in the palace is for connecting two

rooms. The most important point that we noticed from the survey of these bridges in the technical proficiency in the bridge construction.

The gardens were an integral part of the building activities. In the last Chapter the gardens developed during the time of Chandelas and the Bundelas are catalogued. This study is primarily based on the inscriptions and literary compositions supplemented by the physical survey of the remains of gardens. We have discussed gardens of different categories such as independent, part of house and religious establishment.

During the early medieval times the term *vatika* was employed for a garden. A follower of Jain religion presented seven gardens (*vatikas*) to the temple of Jinanth at Khajuraho in A.D. 954. Apart from the solitary evidence we could not obtained evidence of the Chandela period.

The efforts of the Bundela rulers in laying out gardens is highlighted particularly after the establishment of capital at Orchha in 1531. There appears to have been sudden rise in making of gardens. The reason lies behind the establishment of the Mughal empire. Babur introduced well-planned layouts of gardens. The relations of the Bundela rulers with the Mughals played a significant role in this sector. The result can be seen in the increasing number of gardens at Orchha during the term of Madhukar Shah.

The accession of Bir Singh Dev at Orchha marks a now beginning in the history of Bundelkhand. His period is considered as the golden period in the field of construction sector. He laid out Phool Bagh which still exists whose ground plan with running water system is given here in detail. Besides this, the evidence on gardens offered by Keshav Das is compiled which shows that many more gardens were developed during the time of Bir Singh Dev. In addition to these, Rai Praveen Palace garden and the garden in the *chhatri*-complex are discussed.

On the basis of our survey, we have studied the gardens under these headings- one, pleasure gardens of the rulers, two, house- gardens of senior nobility and the rich and third cenotaph gardens. Special description of Rai Praveen Palace garden, Phool bagh, garden of the residence of Bakas Rai, garden in the Datia Fort, and *chhatri*

garden is given in this chapter. The documentation is made in the form of the ground plan and photographs. Moreover, the relation between the gardens and environment is also examined though briefly.

In the end an attempt has been made to highlight the major characteristics of the building technology as well as hydraulic technology adopted by the Chandelas and the Bundelas. Moreover, the changes came about in the last seven centuries are broadly outlined.

Sadhya Lekha
10 July 2012

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DEDICATED

TO

MY DADI MAA

(Mrs. Kaniz Fatima)

CENTRE OF ADVANCED STUDY

B.L. BHADANI
Professor

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Dated: 10 July 2012

Certificate

This is to certify that the thesis, **"Building Traditions in Bundelkhand 1000 AD. -1700 AD."** Submitted by **Ms. Safiya Khan** is the original research work of the candidate and is suitable for submission for the award of the degree of Doctor of Philosophy in History.

(PROF. B.L. BHADANI)
Supervisor

CONTENTS

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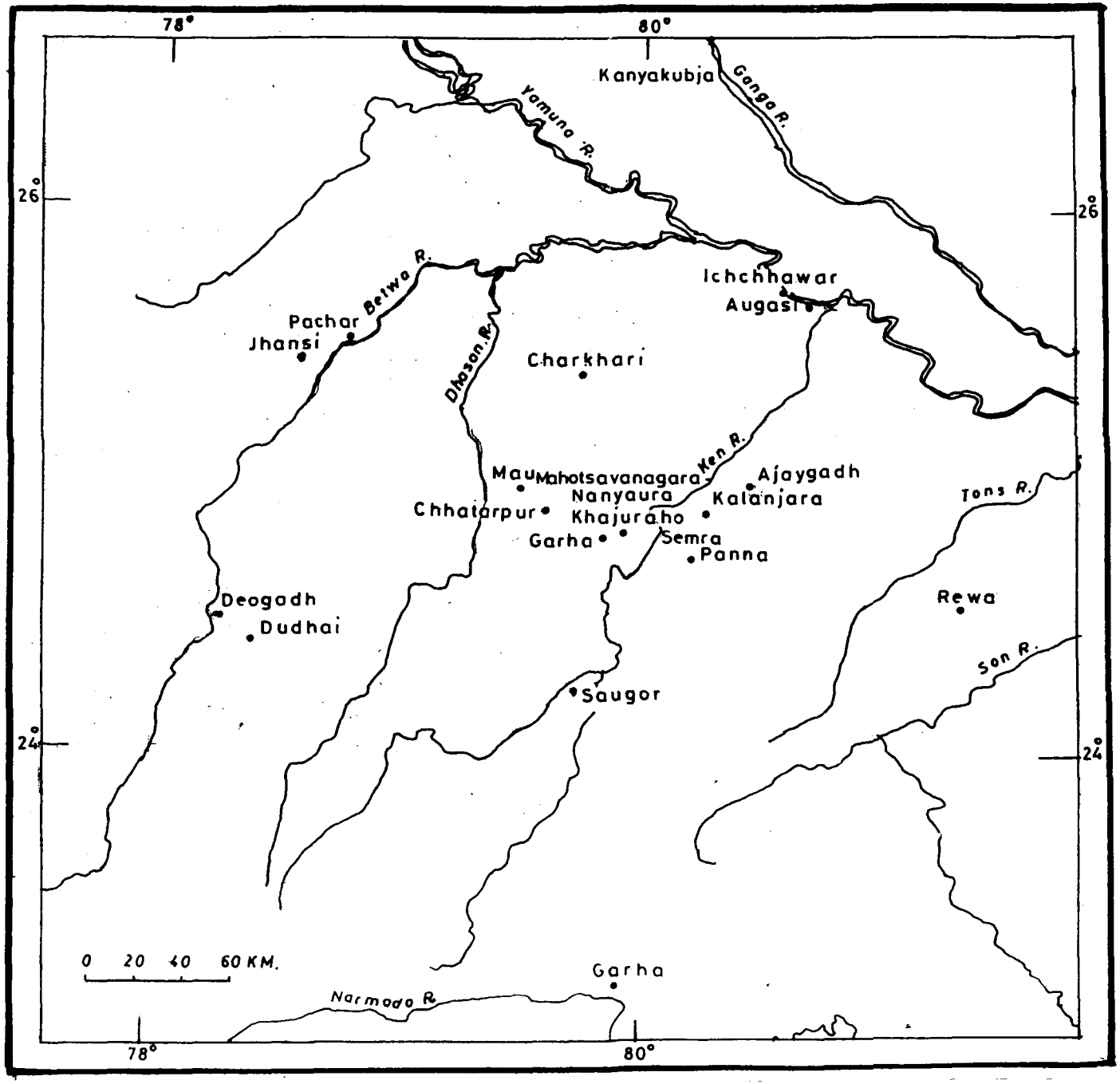
(SAFIYA KHAN)

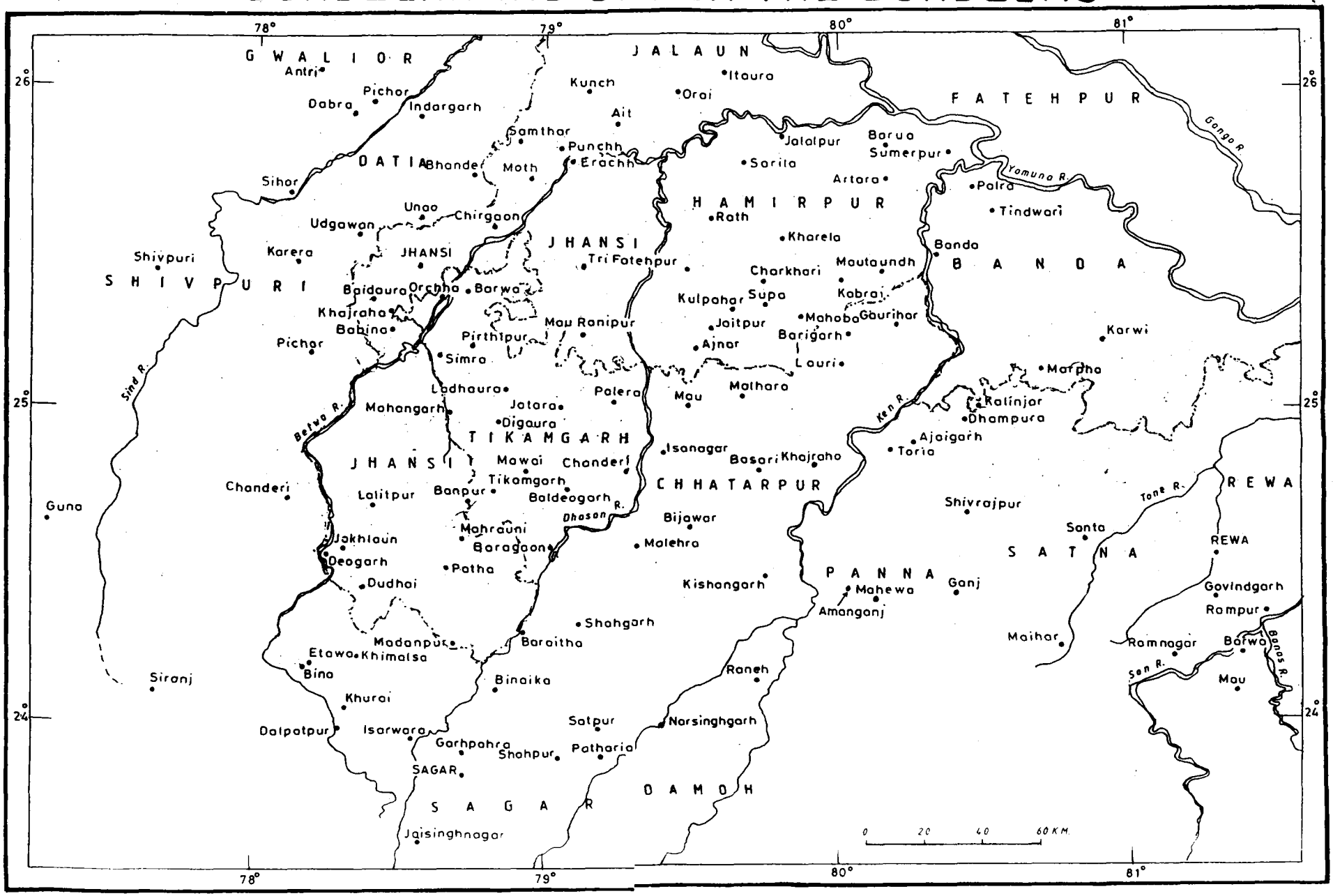
CHAPTER - I

NOMENCLATURE OF BUNDELKHAND

BUNDELKHAND UNDER CHANDELLAS



BUNDELKHAND UNDER THE BUNDELAS



NOMENCLATURE OF BUNDELKHAND

The region of Bundelkhand derives it's name probably from a Rajput clan, the Bundelas who had established sway over a major area located between river Yamuna on the north, Jabalpur and Sagar divisions of Madhya Pradesh on the South, the river Sindh on the west and north-west and the river Tons and Mirzapur hills on the east.[1] Traditionally, Bundelkhand is identified by four rivers, the Yamuna on the north, the Narmada on the south, the Chambal on the west and the Tons on the east.

The area identified with Bundelkhand was not shown under one *Suba* during the time of Akbar. The *Ain-i-Akbari* puts a major part of the region under the *suba* Allahabad while some parts such as Kalpi, Iraj and Chanderi are shown in the *subas* of Agra and Malwa.[2] It suggests that during the time of Akbar Bundelkhand was not a unified political identity.

Even at present, Bundelkhand has no territorial identity in geographical terms but it has deep roots of cultural of unity. The territory is spread over two states. A major portion of Bundelkhand forms the part of Madhya Pradesh and some of its portion falls under Uttar Pradesh.

The Nomenclature of the Region Prior to Bundelas:

The region has its own history. The ancient nomenclature of the region was 'Dasarn'[3] but in the Vedic period this region came to be known as '*Asar Puneet*'.[4] It changed its name in the *Puranic* period and was known as the 'Chedi Pradesh' which term was prevalent from the times of the *Mahabharat* till the 6th century B.C. The oldest reference of the word is available in the *Rigved* when the Aryans studied geographical conditions of the five rivers.[5] During the period of the *Mahabharat*, the region was under the possession of Shishu Pal who made Chanderi his capital.

Besides this, this region was also known as the '*Dasharn Pradesh*'. The reason behind it is that there is a big river *Dhasan* (*Dasharn*) therefore the region around it came to be known as the '*Dasharn Pradesh*'. There is an another name of *Dasharn* in the *Mahabharat* which means the country of ten rivers namely, Betva, Yamuna, Chambal, Dhasan, Ken, Tons (Tamsa), Kali Sindh, Payasvini, Narmada and Pahuj.

In addition to these, this area was also styled as the 'Jajhoti Prades' which is referred in the *Skand Purana*. Ayodhya Prasad asserts that the *Jujhoti* was the first

name of Bundelkhand and its territory includes Kantipur (Kutwar), Chedi Desh and Malwa.[6]

The argument in supporting with the name 'Jujhauti' is extended that since the people of this region were ready to sacrifice their life for their region therefore Jujhauti appears to have been derived from the term *Jujhani* (fighting).

During the time of the Chandelas, the region assumed a new name *Jaijabhukti* or *Jejabhukti*. The region under them came to be known as such. It is said that the region acquired this name after a ruler named Jaijak, son of Chandravarman of the Chandela dynasty whose real name was Jai Varman (also know as Jaishakti). He ruled over the region from 870 to 880 A.D. He with the help of his brother Vijayshakti conquered this vast region and named after himself.

Many foreign travellers noticed this term for the region. Among the foreign travellers the Chinese traveller Yuan Chuang, Arab traveller Abu Rihan al-Beruni and Ibn Battuta were prominent who appear to have visited the region and mention about it. Yuan Chuang who visited the country in 641 A.D. mentioned it by the name Chi-chito or Jijhoti.[7] Al-Beruni calls it Jajhoti[8] and Ibn Batuta visited Khajuraho, a capital of Jaijakbhukti and called it Khajarra.[9] This name has also appeared in an inscription.[10]

Chandrawati:

Ptolemy calls this region 'Sandrawatij' in his book *Ancient India as Described*. He has also given its boundaries. He shows Kaspirasi on its west which also included Modra (Mathura). Besides this, Vindhya mountain in the south and Tamsis (River Tamsa or Tons) in the east.[11]

Cunningham equates 'Sandrawatij' with 'Chandravati' and relates it to Chambal or its refined name 'Charmanyawati' and thus reaffirms the opinion of Ptolemy. Therefore, it is clear that the area of the Chambal and the River Tamsa is the area of 'Sandrawatij".[12]

Ptolemy talks four cities Taasis, Karponia, Imlao and Nandanbar in 'Sandrawatij' which are identified with Kalinjar, Khajuraho, Mahoba and Nalpur.[13]

Territory under the Chandelas:

The tract that lies to the south of Jamuna and north of the Vindhyas, east of the Betwa or Vetravati River, and west of the River Tons or Tamsa, is now known as

Bundelkhand, after the Bundellas, who ruled over the region from the middle of the 14th century.

The boundaries of the Mahoba-based Chandela principality underwent changes between 9th and 13th century and, accordingly, the Chandela empire, identified with it, had fluctuating limits. But there is little doubt that from the middle of the 10th century to the second half of the 13th century, the Chandela empire always included Khajuraho, Kalinjar and Ajaygarh.[14] The tradition assigns Maniagarh as the original home of the Chandelas in Chhatarpur State. Besides this, tradition also assigns eight forts under the *command of the Chandelas namely, Barigarh, Kalianjar, Ajaygarh, Maniyagarh,* Marpha, Maudha, Garha and Mahiyar.[15] But infact four places, Khajuraho, Kalanjara, Mahoba and Ajaygarh were the backbone of the Chandela empire.

Geography of the Region:

The area of Bundelkhand is very vast and covers about 2 lakhs square kilometers. At present this region is fragmented into two states of India i.e. Madhya Pradesh and Uttar Pradesh. Sixteen districts are in M.P. namely Datia, Muraina, Gwalior, Jabalpur, Vidisha, Raisen, Satna, Rewa, Panna, Guna, Chhatarpur, Sagar, Tikamgarh, Damoh, Narsinghpur and Bhind, while seven districts are in U.P. namely Jhansi, Lalitpur, Banda, Mahoba Chitrakoot, Hamirpur and Jalaun. These twenty three districts of M.P. and U.P. broadly comprise of the Bundelkhand region.

Geographically, the region is not uniform but contains varied features. This consists of high mountains, small hills, *pathar*, rivers, extensive forests and various kinds of soils. Major part of the region is covered with *patthars (Stone rocks)*. It contains the mountains range of Satpura, Swarngiri and Hans. Bundelkhand is fortunate enough it contain ten rivers namely, Yamuna, Betwa, Dhasan, Ken, Chambal, Bagi, Tons, Mahanadi, Narmada and the Mandakini. The river Yamuna which flows through the districts of Jalaun, Hamirpur, Banda, Kalpi and then turns towards the northwest of Gawalior and Bhind, irrigates the northern part of Bundelkhand. Then the river Ken falls in the Yamuna near Chillaghat and from here it travels to Allahabad where it meets the river Ganga.

The river Betwa originates in the mountains located near Bhopal and covers almost 400 miles. This passes through Malwa and Bundelkhand and falls in the

Yamuna. Bhopal, Sagar, Gwalior, Lalitpur, Jhansi, Orchha, Jalaun and Hamirpur are covered by the Betwa river and irrigates large areas in the districts.

The Chambal originates from the Janap mountains near Mau Cantt. of Indore. Then it travels through Indore, Gwalior, Moraina and Dholpur and falls in the Yamuna 25 miles south-east of Etawah.

The river Tons originates from the mountains near the estate of Mehar. The river Narmada runs from the hills of the Amarkantak and reaches Jabalpur through Mandla. Damoh and Sagar on the northern Ghat and Narsinghpur and Hoshangabad are located on the southern ghat of the rivers. Besides these, other rives too play very important role in different parts of Bundelkhand.

Four kinds of soil are found in the region namely Mar, Kawar, Padwa and Rakar. Mar is black in colour and contains moisture therefore suitable for wheat cultivation. The Kawar is hard and black in colour therefore requires more water and suitable for the gram and juwar cultivation. Padwa contains yellow mixed with white colour also requires more water. Wheat, juwar, bajra, sugarcane, soyabean and masur are raised in abundance in this soil. The Rakar soil contains more *kankar (Stones)*. Therefore it becomes very hard and is generally not fit for cultivation. The land containing this kind of soil is found near rivers.

The territories possessed by the Chandelas was a unified and contiguous block in Central India. This area was benefitted by a large number of rivers and mountains. Among ten rivers, mentioned above the Sind,the Betwa, the Dhasan, the Son and the Ken are the main rivers in the eastern part of Central India. This region is covered by the Panna range from south-west to north-east and similarly the Vindhya range make this region almost un-approachable from the south.[16]

The territory of the Chandelas stood on the fringe of the fertile region of north-western India which lay to the north of Jamuna and the Ganges. The country itself divided by numerous ranges of hills which made communication and administration of such hilly region quite difficult.

This geographical hurdle was the biggest problems for organizing the central authority over the region. Another problem was of level land available for agriculture. The hilly tract appears to have shrinked the cultivable land. Therefore, it became an additional burden on the shoulders of the rulers of the region to create a network of waterbodies for irrigating fields created between hills. Both the Chandelas and the

Bundelas appears to have followed the dictate of the geography and constructed large number of waterbodies such as dams, tanks, wells and stepwells.

History of the Chandelas:

The paucity of documents did not allow us to peep into the early history of the Chandelas. The earliest inscription of this dynasty is the Khajuraho Stone inscription of Dhanga belongs to Vikram Samvat (hereafter V.S.) 1011/A.D. 954.[17] Besides Dhanga, the name of Nannuka appears in this as well as other inscriptions. In addition to these two names many mythical names surface in these records. Thus these inscriptions give the name of first Chandelas ruler Nannuka. Cunningham goes a step forward by assigning the first quarter of the 9th century as the approximate date of Nannuka.[18] This encourages us to say with certainty that the Chandela dynasty was established in the first quarter of the 9th century. No doubt the Nannuka was an excellent ruler in all respects but in all probability he was a powerful vassal of the Pratiharas.

He was succeeded by his son Vakpati. Though he extended his territories but did not have any achievement to his credit. He had two sons named Jayasakti and Vijaysakti. The former ascended throne after his father but after his death his brother Vijaysakti succeeded him. Both were subordinate chiefs possibly under the Gurjara-Pratihara Bhoja or his son Mahendra Pala (*c.* 893-907).[19] But interesting thing is that both are mentioned together in later inscriptions because of their popularity.

After Vijaysakti his son Rahila ascended throne. Though numerous inscriptions highlight his achievements and shower praises on him for his bravery and expeditions. But he was still subordinate to the Pratiharas. This means that he could not act independently.

In real terms the Chandela dynasty emerged as powerful entity during the time of his son Harsha. There was rivarly between the Pratiharas and the Rastrakutas and the Palas. The supremacy of the Pratiharas over Northern India was challenged both by the Rastrakutas and the Palas. Since the departure of Mahendra Pala (*c.* 893-907) the position of the Pratiharas was weakened. The succession problem between Bhoja II and Mahi Pala further weakened the position of the empire. Ultimately, Bhoja II succeeded Mahendra Pal but had very short reign (*c.* 908-14). Then Mahi Pal (*c.*914-43) took command in his hands.

The Rashtrakutas under King Indra III undertook expedition against the Pratiharas in *c.*915-17 and Mahi Pala was thoroughly defeated and saved his life by flight. In this situation the Palas of Bengal taking advantage of the situation occupied parts of Bihar.

Contemporary inscriptions inform us that during this time Mahi Pala sought help of the Chandela ruler Harsa. In turn he extended his help with full strength and proved his power by placing Mahi Pala again on the throne.[20] Undoubtedly, this help by a feudatory to the sovereign increased the power of the Chandelas. By this action Harsa got success in raising the Chandelas as one of the leading powers in Northern India. Besides this, his matrimonial relations with the Chandelas and Kalchuris further enhanced the social prestige and status of the Chandelas. No doubt he had strengthened the position of his empire but not freed himself from the subordination of the Gurjara-Pratiharas.

Yasho Varman:

The demise of Harsa paved the way for his son Yasho Varman. His mother was Kancuka.[21] In the above inscription he is also named as Laksavarman.[22] We get information about his achievements from the inscription of A.D. 954 belonged to his son Dhanga.[23]His greatest achievement was the occupation of the Kalinjara fort.

From the study of various available inscriptions it becomes clear that Yaso Varman undertook campaigns in different directions with considerable success. He had raised a strong army. The downfall of the Pratiharas provided an opportunity to him to free himself from the their subordination. The decline of the Kalchuris and the Rastrakutas was also an opportunity for the Chandelas. Thus the Chandelas emerged as the most strong force in Northern India.[24]

Dhanga (c. 954-c.1030):

Dhanga was the son of able father Yasho Varman. His first inscription belonged to the year A.D. 954 [25] which means his accession must have occurred before this date. The remarkable event of his reign was the final breaking of all relations with the Pratiharas.

After the consolidation of his power, Dhanga led expeditions to expand his territory. After establishing capital at Kalanjara, he appears to have occupied Gopagiri (modern Gwalior), Kasika (Banaras) and Prayag. Undoubtedly, he had emerged as the most powerful ruler of Northern India and took the place of the Pratiharas. His power

was recognized by his neighbours and he extended help to Sahi ruler Anand Pala in A.D. 1008 against the Muslims.[26]

Interesting fact about him is besides empire builder he was a great patron of art and architecture. Large number of buildings were constructed during his reign.

Dhanga (c. 1008-17):

He was succeeded by his son Dhanga or Dhanga Deva who was equally powerful ruler. The information about him coming to us from the later inscriptions. They all praise him in high words. Bose assigns the period 1008-17 as the period of his reign.[27] While Vaidya fixes his reign from 1000 to 1023.[28] His argument is based on two inscriptions of his period belonged to the years 1002 and 1022. It is said that Mahoba got the status of capital during his rule.[29]

Vidyadhara (c. A.D.1017-1029):

The successor of Ganda was Vidyadhara. We know about him from the later inscriptions and the chronicles of Muslim period. The later sources provide detailed information about him. Ibn-ul-Athir writes about an expedition of Mahmud in 1019 against the Pratihara ruler Rajyapala of Kanauj. He was defeated and compelled to enter into a humiliating treaty. As soon as Mahmud left country the Chandela ruler Vidyadhar picked up quarrel with Rajya Pala and defeated and killed him. This annoyed Mahmud who attacked Vidyadhar in 1019 but this battle remained indecisive. After that Mahmud returned to Gazni.[30]

In the year 1022 the Chandela empire witnessed another attack by Sultan Mahmud but some contemporary Muslims chronicles are of the view that this invasion did not take place. Ray draws conclusion after the scrutiny of the documents about the friendship established between Sultan Mahmud and Vidyadhara which continued till 1029. It means that the rule of Vidyadhar continued till this date.

Vijaya Pala (c. 1030-50):

The demise of Vidyadhara proved very disastrous. He was succeeded by his son Vijaya Pala who was incapable to hold back the prestige of the Chandela kingdom. He ruled between *c.*1030 and 1050. He contributed in weakening the Chandela kingdoms by gradually loosing his territories to the enemies. Prayag and Kacchapaghats of Gwalior were occupied by the Kalchuris and the Pratiharas.

After his departure in 1050, Deva Varman ascended the throne. He did not have any worthwhile record on his credit. His period is considered as one of the darkest chapters in the history of the dynasty.

Kirti Varman (c. 1060-c. 1100):

He was the younger brother of Deva Varman who took the command of the Chandela kingdom in his hand probably dethroning his elder brother. He possessed all qualities.[31] It is believed that the social influence and power of the Chandela dynasty damaged during the time of two previous rulers was restored by Kirti Varman. In his efforts of restoration of glory, he got help from his vassal Gopala but the inscriptions of Kirti Varman's period do not acknowledge the services of Gopala.

The important event of the period is issuing of coins by Kirti Varman. These appear to have been copies of Cedi ruler Gangadeva. This indicates occupation over the Chandela kingdom by Kalchuris.

In political affairs he established his dominance over Kalchuris. He defeated Karandeva sometimes between the years 1060 and 1064. This was an important event which had far-reaching importance. This victory re-established the prestige of the Chandelas.

On the basis of two available inscriptions of the years 1090 and 1098, we may reasonably fix *c.*1100 as the termination of his rule.

During his reign the fort of Kirtigiri was built[32] which is identified with Deogarh.

Sullakshana Varaman (c.1100-1115):

He succeeded his father Kirti Varman. The status of the Chandela power revived by him was maintained by Sullaksa Varman. He successfully led campaigns against the Parmars of Malwa and the Cedis. According to Ray he extended his influence on the region of Betwa and it is possible that he may have carried out successful raids in Malwa from the Kirtidurga.[33] It is said that he was successful in extending the empire and maintained the glory revived by his father Kirti Varman.

Jaya Varman (c. 1115-20):

It appears that he ruled over the Chandela kingdom between *c.*1115 and 1120. During his reign the Gahadavala ruler Govind Chandra had occupied some part of his kingdom. This is inferred from the inscription found in a village near Chhatarpur which

is considered as a part of the Chandela kingdom.[34] Lost of some territory to the Gahadwalas distressed Jaya Varman and consequently abdicated in favour of his uncle Prithvi Varman. He ruled the kingdom between *c.*1120 and 1129. He was equally incapable and could not achieve success in winning back the lost territory. Not information about him is available in records.

Madan Varman (c. 1129-63):

He assumed the power in about *c.*1129 after the demise of his father Prithvi Varman and controlled the kingdom till 1163. We have found get inscriptions and coins of his period which throw some light on him and his rule.

It is mentioned in the Mau inscription that he had defeated the Cedi King. Similarly the King of Kasi always maintained friendly relations with him and the ruler of Malwa was suppressed and agreed to pay homage to him. This shows his growing influence over his neighbours.[35]

Finding of 48 silver coins of Madan Varman in village Panwar of the Teonthar Tahsil of the Rewa State indicates that some parts of Baghelkhand were occupied by the Chandelas.[36] But later on this part was occupied by the Kalchuris which is attested by the discovery of two inscriptions one in a hall called Lal-Pahad, near Bharhut and second near the foot of Alah-ghat.[37]

Besides this Madan Varman also extended his control over the Malwa which was under the possession of the Paramaras. Which is attested by the *Augari* grant by Madan Varman which was found in the Banda district of U.P. He had granted a piece of land from his residence near Bhilas Vamin (modern Bhilsa) to a Brahmin in 1134.[38] But this territory again went into the hands of Paramaras during the time of Laksmi Varman son of Yasho Varaman in 1191.[39]

From the available inscriptions one point emerges that the territories conquered by the Chandelas from the Paramaras and Kalchuris were taken back by them. Similarly some part of the Chandela kingdom occupied by the Gahadwala was recaptured by Madan Varman. Thus territories frequently changed hands whenever opportunity arose to any player of the time.

The greatest contribution of Madan Varman was the restoration of Chandela power and he successfully expanded his territory at the expense of other weak dynasties. He extended his kingdom up to the Jamuna in the north, the Betwa in the south-west, Rewa in the east and the Narbada in the south in addition to incorporation

of four important places namely, Kalinjara, Khajuraho, Ajaigarh and Mahoba. He recovered all the territories lost by his predecessors. Once again the Chandelas became the dominant power in the north-west and central India. As stated earlier the Chandela control over territories snatched from Paramaras and Kalchuris could not be retained over a long time. In spite of this it can be said that he strengthened the Chandelas kingdom during his reign.

Parmardi Deva (c.1165-1202):

In between Madan Varman and Paramardi Deva there was a ruler named Yasho Varman whose reign was very short and completely insignificant.

We get sufficient material which throw light on the reign of Paramardi Deva. He ruled over his kingdom more than 35 years. Most important unusual event of his period is conflict with Prithviraj Chauhan III of Delhi and Ajmer. This conflict is confirmed by the inscriptions.[40] Two inscriptions confirm the defeat of Paramardi Deva o and his area of Jejakbhukti-mandala was occupied by Prithviraj Chauhan.

It is said in the conflict the Chandelas were defeated and the part of their territory went into the hands of the Chauhans but these were reoccupied by Paramardi when Prithviraj was engaged in war with Mohammad Ghauri in 1191-92. But now the Chandela kingdom directly came into conflict with the Muslims. Qutubuddin Aibak led a successful campaign against Kalinjar in 1202 and Paramardi surrendered and accepted the suzerainty.[41]

The reign of Parmardi proved disastrous. No doubt he had reoccupied lost territories within few years but the territories including Kalinjara occupied by the Muslims remained under their control. So his rule proved disastrous and the Chandela territory shrank considerably.

Trilokya Varman (c. 1203-50):

From the available inscriptions it is clear that he succeeded Paramardi sometime after 1202. His reign proved to be extremely good for the Chandelas. It appears that he had reoccupied the lost territory including Kalinjara. The contemporary Garra grants demonstrates that he had given land grants in the district of Jhansi, Sagar, Bijawar, Panna and Chhatarpur. This shows that these areas were part of his kingdom.[42] Not only this but he had captured some territories of Kalchuris.

The territorial expanse of Trailoka Varman could be fixed according to find locations of inscriptions of his period. In the east his kingdom contained Rewa and

surrounding places upto river Son while in the west it comprised the district of Lalitpur. Ray says on the basis of drama found in Banda, that this areas in the north was part of his reign. It is also believed that Parmardi extended his territory in the east most because of the expansion of the Muslims in the northern and western parts of the Chandela kingdom. It is said that after the fall of Kalinjar in 1202, Ajaygarh got the status of capital of the Chandelas though the former fort was recaptured in 1205. The rule of Trailokya Varman continued till 1250.[43]

Vir Varman (c. 1250-86):

He succeeded his father Trailoka Varman. His reign was between 1254-86. The available inscriptions demonstrate the control of Vir Varman on Ajaygarh and Kalinjar. He was master of extensive territory which means he continued maintaining the glory of the Chandela Kingdom.

Then the control over the kingdom went into the hands of Bhoja Varman (*c.*1286-88) and Hammir Varman (*c.* 1286-1310). The available inscriptions show that Kalinjara and Ajaygarh and neighbouring territories remained with the Chandelas. For some time Jabalpur and Damoh remained under Hammir Varman but later captured by Alauddin Khalji.

It is generally believed that Kalinjara and Ajaygarh remained with the Chandelas between the period *c.* 1240-1540. Ultimately, Kalinjara was snatched by Sher Shah in 1545.[44]

Though the final blow to the Chandela kingdom was given by Sher Shah in 1545 but the area remained under the possession of Chandelas from 850 to 1202. During the time of Parmardi or Parmal (1166-1202), the process of disintegration of the Chandela kingdom was started. Parmal faced the onslaught of Prithviraj Chauhan and Qutbuddin Aibak. These invasions accelerated the process of decline. His successors could not face the invasions of the Delhi Sultanate. Ultimately the rule of the Chandelas came to an end in 1309 when Allauddin Khalji attacked the territory of the Chandelas. After this invasion they were marginalized and remained there as the petty chieftans.[45]

Between the Chandelas and the emergence of the Bundelas, the region witnessed the change in the status of the rulers. Now the rulers were reduced to the position of mere chieftains, the south and the south – west area of the region went under the control of the Gonds.

The area located near Mahoba and the North – Eastern parts went into the hands of the Bhars. The adjoining areas of Jhansi namely, Garhkundar, Orchha and Unnao etc. were controlled by the Khangars. They also snatched some parts near Mahoba from the Bhars. In brief, the political condition of this region was unstable before the establishment of the Bundelas.[46]

The Bundelas of the region considered themselves as the Gaharwal Rajputs and their origin is from Raja Pancham according to their traditions. After the defeat with the hands of Shahabuddin Ghauri, Gaharwals of Kanauj and Kashi migrated to Vindhya Pradesh. The successors of Pancham extended their influence in the area. His son Bir (A.D. 1214-24) got success in extending territory. His grand son Arjun Pal settled in Mahauni in about A.D. 1313.[47] So the first capital was established at Mahauni. After the demise of Arjun Pal his second son Sohan Pal established his capital at Garhkundar after defeating Khangar Raja. Gradually, his influence spread in the region. The establishment of control of Sohan Pal over Garhkundar proved a turning point in the history of Bundelas.[48]

The successors of Sohan Pal continued to rule over the region and the area under them was expended. But there was no significant incident occurred during this period. In this series Rudra Pratap who ruled over Garhkundar from A.D. 1501-1531 shifted his capital from Garhkundar to Orchha.

Rudra Pratap:

The accession of Rudra Pratap marked a beginning of new era in the history of Bundelas. Their rise started from this time onwards. They came into contact with the Mughals. It is said that after occupying Chanderi, Babur appointed Rudra Pratap as his representative in Bundelkhand. After the demise of Babur there was political turmoil. At this junction he occupied the area between Kalpi and Chanderi. To keep strict control over the newly conquered territory he felt need of a new capital Keeping this thing in mind he established his new capital at Orchha on 20 April 1531. But soon he died in hunting expedition.

Bharti Chandra (1531-54):

After his sudden demise, his state was divided among his sons. Orchha was given to his eldest son Bharti Chandra. He expended his territory with the help of his brothers. The area between the rivers Dhasan and Sindh came under his possession. During the time of Sher Shah he faced difficulties in maintaining control over his

territory. The evidence furnished by Keshav shows the conflict between Bharti Chandra and Sher Shah and Islam Shah.[49] It is presumed that the territory under his control came to be known as Bundelkhand.[50]

Madhukar Shah (1554-92):

Madhukar Shah took command of Orchha in 1554 after the sudden demise of his brother Bharti Chandra in 1554. After coronation he led military campaigns against areas near Gwalior. He continued his aggressive campaigns against Panwaja, Narwar and Sironj. The bold step of capturing these areas annoyed Mughal emperor Akbar. To punish him, a Mughal army was dispatched under the command of Sayyed Mahmud Khan along with other commanders in 1573-74 but could not harm Madhukar Shah.[51] He continued his activities on the strength of his relatives and the existence of dense forest.[52] This further annoyed Akbar. Then he dispatched a big military campaigns under the command of Sadiq Khan in 1577. This contingent reached Karhara (30 mile in the south-east of Jhansi) after cutting forest from Narwar. After capturing Karhara the Mughal army marched towards Orchha clearing forest in between and ultimately the fort was captured. But Madhukar Shah escaped with his son Ram Shah.[53] At last the Bundela chief surrendered and accepted Mughal suzerainty in 1577. But he could not remain loyal for long period and did not join the Mughal army dispatched against Deccan under the command of Shahabuddin and Mirza Aziz Koka. Instead, he along with his third son Indrajit took shelter in the forest. The fort of Kachhowa came under the possession of the Mughals.[54]

No information after 1577 till the end of 1591 about Madhukar Shah is coming to us. In 1591, Prince Murad attacked the territory of Bundelas because he did not go to welcome Murad. This news reached Akbar and he reprimanded the Prince.[55] Sadiq Khan got success in convincing Madhukar Shah to accompany Murad to Malwa. But before reaching Malwa the Bundela chief died in 1592. After his demise, Ram Shah met Murad. Later on he attended the Mughal court and Akbar welcomed him. Thus the cordial relations were established between the Bundelas and Mughals.[56]

Ram Shah:

After the demise of Madhukar Shah, his eldest son Ram Shah took the command of Orchha. His other brothers were given *jagirs* in different parts of the state. Ram Shah could not control his ambitious brothers. Among his brothers Bir Singh Dev was much more ambitious. Barauni was in his *jagir*. He always tried to pick up quarrels

with Ram Shah and used to attack areas around Barauni.[57] He also attacked Mughal territory. Ram Shah always tried to maintain cordial relations with the Mughals. He could not establish his image of a strong ruler. Ultimately, Orchha was given to Bir Singh Dev by Jahangir and Banpur and Chanderi were given to him.

Bir Singh Dev (1606-27):

Bir Singh Dev was third son of Madhurkar Shah. He was given Barauni in *jagir*. This was not satisfy enough to him. He continued to harass his elder brother by attacking territory of Orchha. During this time he had developed intimate relationship with Prince Salim. This relationship was further strengthened by killing Abul Fazl on 9 August 1602 near Antri on the advice of the Prince. This incident annoyed Akbar. The Mughal army was dispatched to capture him but could not get success. He took shelter in forests to escape arrest till the death of Akbar on 15 October 1605.[58]

The accession of Jahangir brought good fortune for Bir Singh Dev. He went to Agra to congratulate the Mughal emperor. On this occasion the state of Orchha was given to him for killing of Abul Fazl. Ram Shah was given Chanderi which he accepted after facing Mughal attacks.

After assuming the control over Orchha Bir Singh Dev expanded his territory by capturing surrounding areas and consolidated his position.

He took advantage of cordial relations with the Mughal emperor and carried out constructive work in his state. He built palaces, forts, temples, tanks, dams, stepwells and wells. He constructed fort of Jhansi and innumerable forts in different parts of his state. The work of the Chatarbhuj temple was completed during hid reign. The Keshav Rai temple at Mathura was built by him. The Jahagir Mahal was constructed to welcome Jahangir. The palace of Datia and Satkhanda Mahal were raised by his order. In addition, he implemented his plan in the field of water harvesting and conservation by collecting rain water.[59] Many tanks namely Sindhu Sagar (Garh Kundar), Bir Sagar (Prithipur) and Surai ghat (Shivpuri) were built in the state. In true sense, the reign of Bir Singh Dev could be characterized as the golden period in the history of Orchha.

Raja Jujhar Singh:

Jujhar Singh took the reins of Orchha in his hands after the demise of his father Bir Singh Deo. His relation were not cordial with the Mughal emperor Shah Jahan and he left Agra. The emperor dispatched Mughal army against him under the command of Mahabat Khan, Khan-i-Jahan Lodi and Abdullah Khan. Jujhar Singh was defeated and

accepted the Mughal service and thereafter he accompanied the Mughal army to Deccan. He remained there till June 1635, and thereafter comeback to his state[60] and occupied Chauragarh and killed Raja Prem Narayan.[61] His military actions again annoyed Shah Jahan. The Mughal emperor demanded the booty which he had looted from the Gonds. After his negative response, the Mughal army was dispatched against him under the command of Khan-i-Dauran, Firoz Jang and Khan-i Jahan. Initially he faced the Mughal onslaught but left his territory and took shelter in the jungles of Devgarh where he along with his son Vikramajit was killed by the Gaurs.[62]

The murder of Jujhar Singh annoyed the Bundelas and they decided to continue this struggle against the Mughals under the command of Champat Rai. Later on, he joined Aurangzeb because of his annoyance with Dara Shukoh but after sometime he left Mughal camp and returned to his state. Moreover, he started looting travellers on Malwa route. This annoyed Aurangzeb but he could not do anything because of his engagement in the campaign against Dara Shukoh and Shuja during the war of succession.

After his accession Aurangzeb used Devi Singh Bundela of Chanderi by appointing him the ruler of Orchha but he could not remain there because of opposition by Bundela nobles and local people. therefore, he returned back to Chanderi abandoning Orchha.[63]

After the death of Champat Rai the position of Orchha continued to decline. After Jujhar Singh, Orchha was ruled by Pahar Singh (1641-53) who remained loyal to the Mughal throne. This policy was followed by his successors namely Sujan Singh (1653-72), Indramani (1672-75), Yaswant Singh (1675-84), Bhagwant Singh (1684-9), and Udot Singh (1689-94). During these years Orchha remained peaceful but lost its dominance in Bundelkhand.

Chhatrasal:

Chhatrasal succeeded his father Champat Rai. Fully understanding the political condition of his state, he decided to join the Mughal service. In 1665, he joined the military campaign led by Mirza Raja Jai Singh against Shivaji. He demonstrated his courage in war at Purandar. But he was greatly influenced by the struggle of Shivaji. Therefore he left the Mughal camp and met the Maratha ruler. Shivaji gave him advice to take up the leadership of Bundelkhand against the Mughals. Then he returned to Bundelkhand and started struggle against Aurangzeb, Bahadur Shah, Jahandar Shah

Farrukh Siyar and Muhammad Shah. Later Mughal rulers had to accept his claim over Bundelkhand. After sometime, he also occupied Erach and Kalpi. Later on Mughal *subedar* of Allahabad inflicted defeat on Chhatrasal. After his death in 1731, the political condition of Bundelkhand remained unstable. The penetration of the Marathas into Bundelkhand was started after the death of Chhatrasal.[64]

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CHAPTER - 2

Forts and Palaces

FORTS AND PALACES

The medieval rulers of India constructed innumerable forts and fortresses to defend their territorial possession from their adversaries and to demonstrate their sovereignty. These structures were built keeping the contemporary war technology and tactics in mind. Thus, they occupied considerable importance in medieval polity and warfare and played a pivotal role in contemporary India. Hence battles were fought between the rulers to establish their supremacy and sovereignty over the region by simply capturing forts and defeating their masters. Hence, capturing of a fort meant victory over the enemy and the establishment of sovereignty over the region. Consequently, the medieval rulers made efforts to build impregnable and inaccessible forts to secure their sovereignty an territorial possessions. In fact, the forts had virtually become the symbol of power, prestige and the royal prepotence.

Kalinjar:

Kalinjar occupies a prominent place in the galaxy of forts in India. It's strategic location attributed strength and impregnability to it. It witnessed numerous battles and withstood the brunt of the invasions of Mahmud Ghazni, Prithvi Raj Chauhan, Qutub-ud-din Aibak, Humayun, Sher Shah, Akbar and Aurangzeb.

This celebrated hill-fort is located in tahsil BadausA, 56 km south-east of the Banda district of Uttar Pradesh which falls in the region popularly known as Bundelkhand. It is located on an isolated flat-topped hill of the Vindhya range which rises above 800-900 feet high above the plain.[1] It is fortified by rampart nearly four miles in circuit and constructed of large blocks of stones. This fort seems to have grown organically out of harsh rock. From the ground to a top the passage in length cut in a way that becomes difficult as we go up. Cunningham in his report writes, that the "lower part of the ascent is tolerably easy, but the middle portion is very steep, while the upper part is nearly perpendicular and quite inaccessible."[2] So, the ascent increases gradually as we go up and continue to increase as we proceed further, and with great difficulty one can approach the main entrance gate. The fort runs from east to west. It is rectangular in shape i.e., larger in length than breadth. It is one mile in length and half a mile in breadth.

Cunningham noted two projections-one in the north angle that is nearly a quarter of a square mile while another projection of the same size is on the middle of the southern face. But the latter projection is triangular in shape.[3]

The height of the Kalinjar fort(Plate No. 2.1) is quite inordinary and its access was always difficult to the adversaries. Cunningham further remarks in his survey report that Kalinjar fort excels the Gwalior fort in height. The former is 800 feet above the plain while the latter is below 400feet, i.e. almost half in height. But in length the fort of Gwalior is larger than the Kalinjar fort.

Kalinjar Fort (Plate No. 2.1)

Located on the table-land of the Kalinjar hill it has two entry points or gates, one in the northern direction towards the town while the other is at the south-east angle. The gate facing the route of Panna, is called the Panna Gate.[4] It appears to have been the main or principal entrance and hence it was followed by another six gates. These gates were planned in such a way that at every point the advancing of the enemy's army could be checked or repulsed. One interesting fact emerges out from these gates is that these entrances were not constructed simultaneously but added at different points of time keeping the necessity of defence and military tactics in mind. The principal gate is called Alam Darwaza, a battlemented edifice added during the time of Aurangzeb.

The date of construction of this gate is determined on the basis of the inscription fixed on the gate.[5]

As we proceed further we encounter the second entry point known as the Ganesh gate located at a steep ascent. Strategically placed, it is the strongest gate, defended by bastions on either side.

It appears that it was the first gate in the original plan of the fort and this can be inferred from its nomenclature. In Hindu mythology the entry point or gate had always been associated with the Lord Ganesha. The third gate is located at a short distance above in the bend of road called the Chandi Darwaza. It is also known as the Chauburji Darwaza because it has a double gate with four towers. The antiquity of the gate is attested by the graffiti and inscriptions left by pilgrims.[6] Cunningham noticed an inscription of the Gupta period[7] that indicates the use of place for some specific purpose.

Gate of Kalinjar Fort (Plate No.2.2)

The fourth gate is named after the auspicious planet Mars i.e., Budha and therefore, known as the Budha Darwaza. It is interesting to note that because of steep climb it assumed the second name Swarga-Rohan or "Heaven-ascending Gate". It also contains one pilgrim's inscription of V.S. 1580/A.D. 1523.[8] Along the incline is the fifth gate known as the Hanuman Darwaza. The figure of the monkey-God is carved on the rock. Near the gate is located Bhairon Kund.

This gate appears to have been named so because the God Hanuman represent qualities of chivalry or courage. It reminds the soldiers about their might or strength to fight with full courage. There are also numerous inscriptions of the pilgrims. The sixth gate is the Lal darwaza which owes its name because of its red colour. This gate is located near the top of the height. We may presume that it was named so because here at this point a fierce or final battle was to be fought before entering into the main gate where the royal palaces were located. Therefore it was named as the Lal drawaza. The location of the statue of Bhairav also confirms this presumption. At a short distance is located the seventh gate which is the main gate to reach inner part of the fort. This gate is called Bada darwaza that is elaborately inscribed and leads on to the flat hilltop. Cunningham opined on the basis of an inscription on the gate that it was constructed in V.S. 1691/A.D. 1634.[9] However, it is difficult to ascertain whether it was the date of its construction or renovation.

Waterbodies in the Fort:

The water availabity was considered one of the important factors for the site selection of the construction of any fort because it determined the resistance power of the occupants of the fort against the invading army. The planners of the Kalinjar fort might have been satisfied with the water sources on the site. Therefore, they decided to construct such a fort on the spot in question. There are enough water sources in and around the fort. There are natural reservoirs and other man-made water-harvesting structures. Prominent among them are *kunds*, ponds, springs and tanks (*talao*)-seemingly, a perennial source of water. The statement of Abul Fazl attests this fact when he writes that "springs rise within the fort and there are numerous tanks".[10] His statement proves the wisdom of the planners in selecting this site for the fort which is full of hilly areas around it and provides sufficient water resources. Cunningham notices *Sita kund*, *Patal Ganga* (the underground Ganges) and *Pandu kund*. The *Patal Ganga* name itself indicates its depth. It was carved out by cutting the rock within, therefore no building material was used. Its water supply is perennial. Its antiquity can be judged from the inscriptions found on the water body. There are numerous inscriptions belonging to different periods. The oldest inscription is of the year V.S 1339/A.D. 1282 while others belong to different years such as V.S.1500/A.D.1443, V.S.1540/A.D. 1483,A.H.936/A.D.1529-30 and V.S. 1640/A.D. 1583. The last two belonged to the period of Humayun Akbar respectively.[11]

The *Pandu kund*, named after the Pandavas, is a "shallow circular basin", about 12 feet in diameter but supplies water without any hindrance. The water constantly trickles from the clefts in the rock. An inscription of Gupta period establishes its antiquity than the Patal Ganga (Plate No. 2.3)

Patal-Ganga (Plate No. 2.3)

Koti-Tirth Taal (Plate no. 2.4)

The Budhi or Burhiya tal was excavated in the bottom of deep depression with steps all around. It is said that its water possesses great healing qualities. It was a source of water for the dwellers of the fort.

The Bhairav kund is the waterbody located in the fort near the Lal Darwaza (the sixth gate) and is the largest among the kunds in the fort. It is also Known as the Khambor kund.[12]

The Koti-tirth (Plate No. 2.4) is a holy spot with a quite big reservoir. It is nearly 100 yards in length with a series of steps on all sides. The name of the reservoir itself indicates its pilgrimage status that is also attested by numerous inscriptions left by pilgrims. Cunningham says that it is located on the highest ground in the fort.[13] It collects water in the rainy season or it contains underground water source. This waterbody also feeds another small reservoir known as the Mrig-dhara or "Antelope's spring". It is located below the Kot-Tirth.[14]

Extant water structures demonstrate that enough sources of water for the residents including military contingents stationed in the fort was available. This made possible for the occupants to resist the invading army for a longer period.

Historical Background:

The territory of Kalinjar located on the Vindhya range is known in history well before the construction of the fort. References of Kalinjar occurs in the Vedas, the Mahabharata, Karam Purana, and Padam Purana[15] and these refer exclusively to project Kalinjar as holy place meant for the ascetics. Besides these mythological references, we find innumerable inscriptions that testify the antiquity of the place. The inscriptions and sculptures indicate that this place was quite known before the construction of fort. Its antiquity is regarded as pre-Chandelas dominations.[16]

Inscriptions of different periods indicate the possession of the area by the Pandavas, the Gurjara-Pratiharas and the Rashtrakutas. This place changed hands from the Kalchuris to the Rashtrakutas in the second half of the 10th Centuy.[17] Later on the area was captured by the Chandelas.

The fort is believed to have first erected by Chandra Varma, the founder of the Chandela dynasty.[18] By the end of the 10th Century Kalinjar emerged as the capital of the Chandelas.[19]

Invasions on Kalinjar:

The Kalinjar fort appears to have faced first incursion of Mahmud of Ghazni in A.D. 1019 but he returned back with enormous booty without besieging the fort. Again

in A.D. 1022, Mahmud came and besieged the fort but its ruler Nanda surrendered and made a peace with the invader. But Farishta and Al-Beruni had all praise for the strength and impregnability of the fort. The former writes that the fort of Kalinjar had 'no equal in the whole country of Hindustan for its strength and impregnability'.[20] Al-Beruni also had praise for it. He writes that:

"Marching from Kanoj (Kanyakubja) towards the south-east, on the western side of the Ganges, you come to the realm of Jajahuti (Jejakbhukti), 30 farsakh from Kanoj. The capital of the country is Kajuraha. Between this town and Kanoj there two of the most famous fortresses of India, Gwalior and Kalinjar."[21]

Then the next attack on Kalinjar was by Qutubuddin Aibak and the fort was again wrested from the Chandelas. The court historian Hasan Nizami gives a detailed description about this attack.[22] He writes as follows:

"In the year 599 AH(AD 1203-03) Qutubuddin Aibek proceeded to the investment of Kalinjar, on which expedition he was accompanied by the Sahib Qiran Shamsud din Altamash (Iltutmish). 'The accursed Parmar'[Paramardi deva(1165-1203)], the Rai of Kalinjar, fled into the fort after a desperate resistance in the field and afterwards surrendered himself, and 'placed the collar of subjection' round his neck, and on his promise of allegiance was admitted to the same favours as ancestor had experienced from Maqhmudbin Subuktigin, and engaged to make a payment of tribute and elephants, but he died a natural death before he could execute any of his engagements. His diwan or Mahtea by name Ajai Deo was not disposed to surrender so easily as his master and gave up his enemies much trouble, until he was compelled to capitulate, in consequence of severe drought having dried up all the reservoirs of water in the fort. On Monday, the 20th of Rajab(27th April, 1203) the garrison, in an extreme state of weakness and distraction, came out of the fort and by compulsion left their native place, and the fort of Kalinjar which was celebrated throughout the world for being as strong as the wall of Sikandar [Alexander] was taken."

But inscription indicates that this fort was again taken by the Chadelas.[23] Again on the instructions of Iltutmish, his *iqtadar* of Sultan kot and Bayana Malik, Nasuruddin Taisi made an attempt on Kalinjar. As the news of his attack reached to the ears of the ruler, he fled from there and the territory was plundered by commander of

Iltutmish. He retreated laden with booty after devastating the countryside, but without entering the fort[24] that remained with the Chandelas.

Next incursion was led by Humayun in 1530 which is attested by an inscription on a rock below the Patal Ganga.[25] This attack was carried out during the last days of Babur. This means that after ascending the throne in 1531 Humayun did not carry out any campaign against Kalinjar.

Next attack on Kalinjar was by the Afghan ruler Sher Shah in AD 1545. It was under Raja Kirat Singh. It is said that the Afghan ruler asked the Raja to handover Bir Singh Deo Bundela who had taken shelter there. His refusal invited the attack. Thus the fort was invested by the Afghan army and the siege lasted for one year. Sher Shah himself was supervising the action. He ascended a high tower and was watching activities and ordered one of the officers to bring supply of loaded shells and rockets. There was firing by rockets and one of the rocket was fired against the gate but it rebounded and ignited a heap of ammunitions. Sher Shah standing nearby was injured and was taken back to his tent. Thereafter, he summoned his military commanders to carry out attack immediately. His orders were followed. Abbas Khan Sherwani remarks the invasion as below. [26]

"Men came and swarmed out instantly on every side like ants and locusts, and by the time of afternoon prayers captured the fort, putting every one to the sword, and sending all the infidels to hell. About the hour of evening prayers the intelligence of the victory reached Sher Shah, and marks of joy and pleasure appeared on his countenance. Raja Kirat Singh, with 70 men, remained in a house. Kutub Khan the whole night a long watched the house in person lest the Raja should escape. Sher Shah ordered his sons that none of his nobles need watch the house, so that the Raja escaped out of the house, and the labor and trouble of this long watching was lost. The next day at sunrise, however, they took the Raja alive." "On the 10th Rabi-ul-awal, 952 AH.(May 1545), Sher Shah went from the hostel of this world to rest in the mansion of happiness, and ascended peacefully from the abode of this world to the lofty heavens. The date was discovered in the words azdlash murd. He died from fire."

At last with much difficulty the Afghan army could get success in capturing the fort. Kirat Singh was executed. Sher Shah's son Islam Shah was crowned at Kalinjar.

Later on, the fort again came under the possession of the Baghela chief, Raja Ram Chand after the death of Islam Shah Sur.[27]

After his accession, the Mughal Emperor Akbar attempted to expand his empire. In AD 1569, the Mughal emperor ordered Majnun Khan Qaqshal, the governor of Manikpur to carry out military campaign against Kalinjar. Raja Ram Chander could not dare to face the Mughal army and surrendered the fort without offering any resistance. Akbar then appointed him the first *qiledar* of the Kalinjar fort.[27] Cunningham is right in recording that after the occupation of the fort by Akbar it remained under the possession of the Mughals for 120 years. The Bundela chief Chhatrasal captured the fort during the last phase of Augangzeb's rule[28] in 1688-89. Since then, the fort remained with the Bundelas and did not face any incursion.

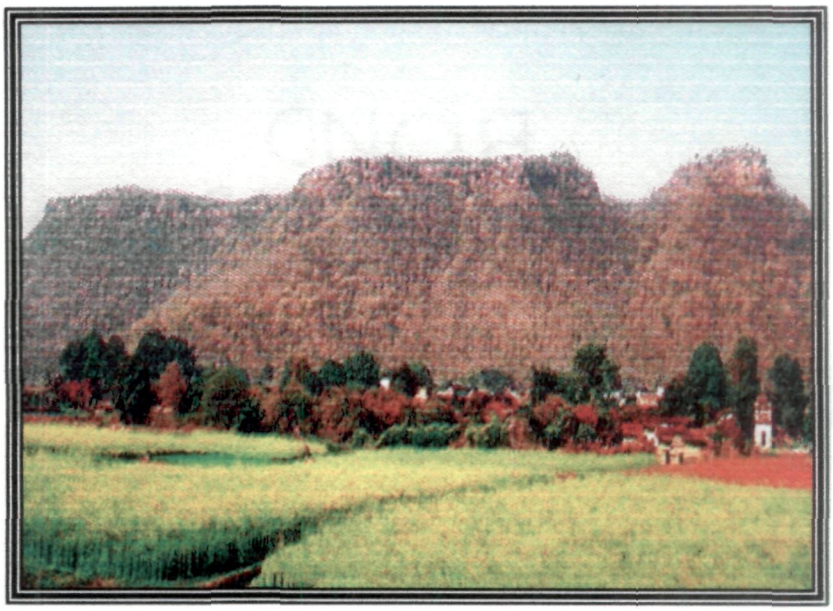
The above description shows that in real terms there was only one attack in military sense and that was by Sher Shah in AD 1545, and in that war the strength of the fort was demonstrated and a long siege is the testimony to it. Though ultimately the fort was captured but its image as a strong fort was proved. Apart this solitary incursion it was having virtually conquered by invaders but its occupant rulers surrendered the fort without any resistance out of fear or being deceived by their trusted men.

Ajaigarh:

The Vindhya range stand proud to posses numerous forts of repute such as Kalinjar and Ajaigarh. The latter is located just 35km from the district of Panna and about 33 km. by road to the south west of Kalinjar.[29] Further, it is on the south-east of Mahoba and north-east of Khajuraho. The fort crowns on a flat spur of the Vindhya range. It is located in the $24^{0}54``$ north latitude and $80^{0}18``$ east longitude. The river Ken flows about 14 km south-west of the citadel. It derived its name from Ajaipal, a sage who meditated on the hill Kedar Parvat.[30]

A physical survey conducted by Cunningham in 1883-84 and his report provides us insight about its design, topography and history. His survey finds its height equal to that the fort of Kalinjar that is, between 700 and 800 feet above the plain. The hill is composed of granite and sandstone. The lower part consists of granite is not steep but the upper part contains a reddish sandstone is extremely high and quite inaccessible. Cunningham makes a comparison of ground plans of both the forts of Kalinjar and Ajaigarh and draws conclusion that the latter is not very small in size than

the former. It is quite near in size to that of the latter. The fort of Ajaigarh is near 1 mile in length from north to south and only a little less from west to east. It is nearly triangular in shape, and the circumference of its walls is just 3 miles. While Kalinjar is oblong form and is nearly a mile in length and half a mile in breadth. At the north angle there is a large projecting spur nearly a quarter of a square mile; and on the middle of the southern face there is another projection of about the same size, but triangular in shape. The distance between the extreme points of these two projections is nearly 1 mile. The whole area is therefore considerably less than 1 square mile, while the parapet walls are nearly 4 miles in length.[31]



Ajaigarh Fort (Plate No. 2.5)

The fort is located on the height of 1744 feet from the sea level and 860 feet from the ground (Plate No. 25). The foundation of Ajaigarh is ascribed to one Ajaypal about whom our sources are silent. Moreover, the name of Ajaigarh is not mentioned in the available inscriptions. Instead, we come across the name as the Jayapura durga or the "fortress of Jaipura".[32] It is said that it was constructed by the Chandela ruler Raja Jaishakti in 830.[33]

The fort was constructed keeping in mind the political conditions of the period, Military campaigns and incursions of the adversaries to expand their territory was a common feature of the polity. Therefore, the builders raised this citadel on a very high hill and built very strong walls to withstand the onslaughts of the enemies and to use it as an important stronghold in the region.

To withstand prolonged sieges, the fort was provided middle bastions and strong corner towers. It has seven gates. The one in the north does not have any nomenclature but is simply styled as Darwaza however, in inscription it is mentioned as Kalinjar Darwaza because it faces the fort of Kalinjar or leads towards it while the other in the south-east is designated as the Tarhaoni Gate. It is named so because the passage directly goes to the village of Tarhowan located at the foot of the hill. Remaining five gates are blocked. To enter into the fort one has to pass through seven gates and zigzag passage. These two gateways are the principal entrances to the fort. Kalijar Darwaza is well defended by four subsidiary gates connected in series by the flight of steps in right angle plan. The construction of these gateways is based on trabeate style having antechambers built on either side to accommodate the guard.

The massive fortification wall as interspersed and strengthened by well equipped sixteen bastions which are located at particular strategic sites. These bastions are drum type in shape with a slight tapering on top just below the merlons. The bastion wall contains loop-holes and crenellation for cannons and also for pouring hot water. The parapet of the fortification is surmounted by merlons resembling mitres.

At the points of strategic importance particularly on the straight walls additional rampart walk-wall at the top has been built and it is approached by flight of steps. The platforms have been erected for fighting.

Waterbodies in the Fort:

The planners, designers and engineers of the citadel were conscious about its provisions which could provide strength to sustain the siege for long period in addition to strong and high walls, bastions and other military check-posts. Water harvesting structures formed an essential component of the fort without which the fort could not sustain for a single day. So they excavated large number of waterbodies to harvest rain water which could satisfy the needs of large population including military contingents and other defence purposes for longer period. So the water harvesting structures inside the citadel provided strength to the occupants.

Keeping this point in mind the architects of the fort excavated two tanks named as the Ganga and Yamuna near the northern of Kalinjar gate.

The designation itself idicats that these waterbodies would provide water for longer period as the two rivers the Ganga and Yamuna. These water monuments hewn in rock and replenished from an undeground spring.

An enormous tank known as Ajaypal Ka-Talao (Plate No. 2.6) is located in the middle of the fort that was built by cutting the rock. It is old in appearance but quite big in circumference. Similarly, a tank known as the Parmal Tal or Parmardideva Talao is located in the southern end of the fort. It is believed that this reservoir was excavated by Raja Parmal of the Chandela dynasty. It is said that the latter waterbody was used by women of the royal house.

Ajai Pal Ka Talao (Plate No.2.6)

A stepwell (*baoli*) was constructed by Raut Sri Vera, the son of Tejla in VS 1237/AD 1180 during the time of famine[34] Obviously, these three big reservoirs provided sufficient water supply to the residents of the fort. The Ganga and Jamuna tanks appear to have supplied water like perennial rivers of the same name. It means their water was never dried up even in the summer. This implies that these tanks were not depended on the rain water alone but get water from the underground springs.

The *Ain-i-Akbari* records Ajaygarh as one of the *pargana* headquarters under the sarkar Kalinjar in *suba* Allahabad[35] which had a stone fort located on the hill. It clearly demonstrates that it was incorporated into the Mughal empire by the time of the compilation of the *Ain* by Abul Fazl. But we do not know that how it came under the

jurisdiction of the great Mughal emperor Akbar. We can presume that when Majnun Khan Qagshal, the governor of Manikpur led military campaign against Kalinjar on the orders of the Emperor[36] this citadel was also surrendered to Akbar by Raja Ram Chander. This appears logical because it was then under the possessions of the ruler of Kalinjar. Since the time of Akbar it remained the part of the Mughal empire till the end of Aurangzeb's reign. In the meantime, Panna emerged as the dominant principality in Bundelkhand, Champat Rai took part in the battle of Samugarh against Dara Shikoh on the side of Aurangzeb.

Later on, the relations between Champat Rai and Aurangzeb were broken down because of the latter's unbecoming behaviour. The Bundela chief resented against it and decided to block Mughal access to Malwa. He harassed the Mughal army by guerrilla tactics but the insurgency could not continue for a long. Under the pressure of Mughal military campaigns, assisted by th Orchha troops he was compelled to commit suicide by stabbing himself to death along with his wife.

After his father's death, Chhatrasal was offered Mughal service but instead he preferred to search new allies in the Marathas. He met Shivaji and on his advice he came back to Bundelkhand. Then pursuing the policy to expand Mughal influence in his own region of Bundelkhand and he captured Ajaiygarh in 1674, Chhatrasal was confirmed in his possessions by the emperor.

After his victory over the citadel it remained in the possession of the successors of Chhatrasal. His son Jagat Raj inherited it as a part of Jaitpur state. Later on, it came in 1800 in the hands of Ali Bahadur, the Nawab of Banda. Finally, in 1809 the British laid siege of Ajaigah and the fort was conquered from a person known as Lakshaman Daoowa, Pogson gives description of the battle:

"The batteries opened at day break on the 12th of February, 1809 and so heavy and destructive was the fire, that the enemy could not show a man, and fired in the intervals while our guns were cooling. By sunset two of their guns were dismounted and three of the gates, with their defences, laid in ruins. Immense masses of stone and masonry were brought down. Next morning, the batteries played on the upper gate and defences with powerful effect, and at noon the enemy displayed a white flag. At four they evacuated the fort; and at five we occupied it".[35]

The Above description shows the strength of the fort. A fierce attack with guns took a full day to capture it. It came under the possession of the British only after the destruction of major defences of the fort. It shows that the fort of Ajaigarh is one of the forts of India that faced many invasions but did not change hand without battle. This speaks of the impregnability.

Maniyagarh:

This fort is located on the left side of the River Ken in the modern city Rajgarh. It is pearched on an isolated hill known as the 'Maniya' mountain, part of range of hills runs to the south and south-east of the modern place. This was built by the Chandela ruler Yasho Varma (A.D. 925-40).[38] He had established a temple in the fort of his favourable deity Maniya Devi and named it 'Maniyagarh.'

The fort is in $24^0 43''$ north latitude and 80^0 east longitude and 1200 above the sea level. The site was first surveyed by Cunningham in 1871-72 but could not conduct extensive and detailed survey because of dense forest. Therefore, he gives rough estimation of its size.

He says that "it is about 1½ mile long, or more, by from ¼ to ½ a mile broad.[39]. Then he again conducted a survey in 1883-84 but could not add much afresh. According to Tripathi the fort is about 15 km in circumference.[40] The wall around is made of square and rectangular stones which are "well and closely set." Sometimes merely rubbles are used but no motar in any case.[41]

With these stone slabs the wall is raised 20 feet high and 10 feet broad after levelling the surface of the hill. From the defence point of view a guard or defence post was erected on the western part of the wall which still exists though in dilapidated condition.

According to Cunningham this fort is older than Ajaigarh and Kalinjar. Though it is not as extensive as Ajaiygarh but certainly stronger than it.[42] It is unique in its natural defence. Since it is raised on an isolated hill and not commanded by any other hills. Those which are close or near to it being separated by deep valleys which makes it difficult to approach.[43] This is the reason that it neither went into the hands of an enemy and nor even attacked.

The Chandela rulers by excavating eight tanks all around the fort made the approach more inaccessible.[44] Besides this, the eastern part is protected by the River Ken. Thus deep valleys, tanks and the river Ken made it impregnable.

It appears that the citadel contains one gate in the north which is the main entrance called the Chandorani Darwaza located near the temple of Maniya Devi.

The palaces and stores were erected in the middle of the fort. An enormous tank was excavated in one corner of it. In addition to it, there is a natural spring from which water constantly oozes out from clefts and pores of the overhanging rock and collects into a Kund.

Bundelas:

The emergence of the Bundelas marks a new beginning in the field of fortress-palace building. The style developed by the Bundelas in the architecture contains some indigenous elements, therefore it earned an appellation and to be referred to as the 'Bundela Style' The Jahangir Mandir or Mahal at Orchha and the Bir Singh Dev Mahal at Datia are the representative of this style.

Jahangir Mandir or Palace:

This fortress palace was constructed under the instructions of Raja Bir Singh Dev in the first and second decade of the seventeenth century. It was purposefully designated as the Jahangir Mandir to demonstrate his loyalty to his patron, the Mughal emperor Jahangir. The suffix of the term "Mandir' (temple) after proper name, Jahangir signifies the status of the God which was accorded to the Mughal emperor by the Bundela chief. Infact, this was a befitting response from him to his patron who has the entire territory of Bundelkhand dethrowning Raja Ram Shah, the elder brother of Bir Singh Dev.

Percy Brown calls[45] it as the "castellated residence which means combination of characteristics of a citadel and a royal palace. The magnificence of the architectural style demonstrates the commanding position of the Bundela chief in the region. This multistoried structure was built on a hillock with locally found stone. This magnificent building is square in plan with bastions at the corners, rising in two storeys with projecting balconies which are supported by brackets and surmounted with pillard

kiosks. This appears to have been influenced with the architectural style and design of Gwalior fort.

Eave stones (*chhajjas*) supported by beautiful brackets run all around the building at various heights thus dividing the entire building into several receding storeyes. In the middle of each storey is a projecting balcony resting on pillars. The top most storey has four domed pavilions at the four corners and four domed structures at the four sides- which come eight in all. Each domed superstructure is surrounded by four smaller *chhatris*. While the four side pavilions are also flanked by two pillared square kiosks (*chhatris*) with pyramidal roofs. Each done is crowned with *padamkosha* (lotus petal), *amalaka* and *kalasha* finial. The four side pavilion domes are plain while the four corner pavilion domes are ribbed domes which resemble to those of Hampi.

Front View of Jahangir Palace (Plate No. 2.7)

The main entrance is beautifully designed as it is five storey high structure and each storey is demarcated by *chhaja* resting on carved brackets (Plate No. 2.7). The entrance is a combination of both Hindu (trabeated) and Islamic (arcuate) techniques. The actual entrance is through the beautifully carved lintel and bracket doorway above which is a fringed arch and the whole is enclosed within a rectangular frame. The gateway is flanked by projected pillared square balconies with beautiful brackets supporting the *chhajjas*.

The lower balconies contain a pair stone elephants while the upper balconies have openings which are connected in the chambers behind them.(Plate No. 2.8) There is also an opening above the gateway in between the actual entrance and the ornamental arch. The entire façade is beautifully decorated with carvings and the remaining upper storeys are covered with perforated stone (*jali*) screens (Plate No. 2.10).

Main Entrance Gate (Plate No. 2.8)

Inner View of Palace (Plate No. 2.9)

As compared to the exterior, the interior is more interesting. The central courtyard is surrounded by multi-storeyed structures.(Plate No.2.9)

Whereas the exterior is predominantly indigenous while interior is predominated by Islamic or arcuated methods. There are arcaded verandas in all the four sides of which in the center are pointed plains arches and in the sides are foliated arches.

Jalis and Bracket of the Palace (Plate No. 2.10)

Fountain System in Courtyard (Plate No. 2.11)

Seeing these characteristics it may be said that the interior arrangement pf buildings with constructional techniques have close resemblance with the structures of Fatehpur Sikri. Exteriorly it bears a close affinity with Rajput structures of Rajasthan.

Percy Brown compares the interior design with that of Jodha Bai house at Fatehpur Sikri. But at the same time he appreciates it's large size and intricate planning.[46] (See Plate No.2.11)

It appears that master mason tried to imbibe all essential elements of medieval architecture in this great building. On this basis the English historian of architecture classifies it as a superb example of the builder's art.[47]

The analysis of the architectural characteristics, design and plan of the Jahangir Mahal demonstrates that it contains varied forms and styles of architecture developed in different regions prior to this building. The styles of Rajput, Hampi, Islamic and Mughal architecture were skillfully employed by the artisans. On this basis one may say that it is an example of composite culture reflected in the architecture developed by the Bundela rulers in their territory. In fact it represents an amalgamation of in the field of building construction.

Palace of Datia:

Datia is located 24 km north-west of Jhansi and about 48 km away from Orchha. Now it forms a separate district headquarters of state of Madhya Pradesh. Formerly it was the part of Orchha state. When the reins of the Bundelkhand state came in the hands of Bir Singh Dev in 1605 the constriction of buildings: forts, palaces, temples, dams, wells and stepwells was initiated at large scale.

The constriction of palace at Datia was a part of broad plan of Bir Singh Dev which he is said to have built in 1620.[48] This building was known by various names such as Satkhanda Mahal, Narsinsgh Mahal[49], Datia Rajmahal[50] and Purana Mahal or Birsingh's Palace.[51]

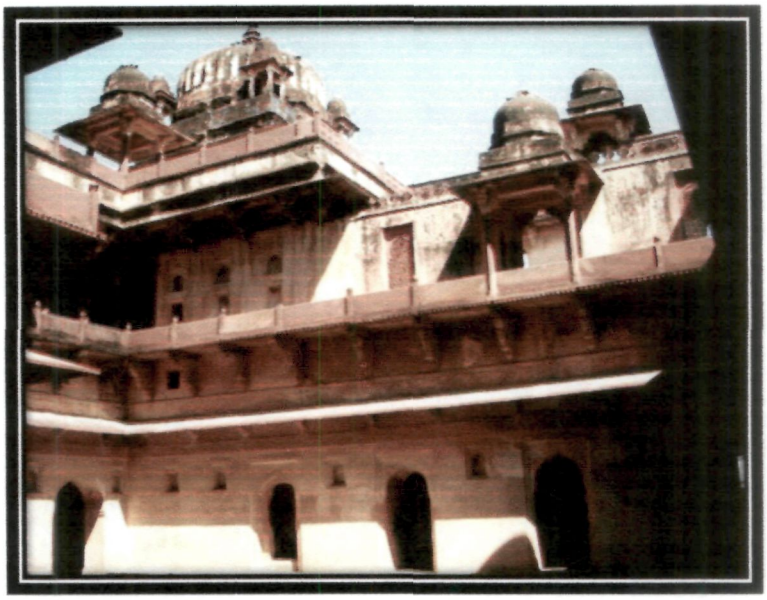
It is built on an outstanding rock and seems to be a compact building within an enclosure. Percy Brown praises its architectural beauty. He gives its measurement as 200 feet in length and the total height to the apex of the central dome is130 feet but at the same time praises to architectural entity which makes it majestic and prominent.[52] He further writes that since the entire structure stands on an uneven ridge of granite therefore its height is deceptive. A remarkable feature of this building is that it is not unplanned but based on a solid principle. Percy Brown praises its 'systems of foundation.' He notices underground storeys which are not visible. There are as many

underground storeys as are above the ground. According to him there are many large underground or subterranean halls in descending order. It is evident that these underground halls are excavated out of the basement rock. These underground storeys or *tahkhanas* appear to have duplicate of the structure above. This kind of planning of underground storeys is said to have been usual in hot countries and Brown designates them as the 'cavern- like retreats' and this appears to have been the motive behind this particular design.[53]

Façade of Datia palace (Plate No. 2.12)

It is really a massive structure comprising as many as five stories and square in plan. Every storey is of different height. The storeys are superimposed one over the other in diminishing manner to be finally surmounted by a big ribbed dome on an octagonal drum and surrounded by four small *chhatris,* one each on the four corners of the square terrace of the top storey. The dome as well as the *chhatris* are crowned with *padamkoshas, amalka and Kalash* finials. Each storey of the palace is demarcated by *chhajas* resting on beautiful brackets and these *chhajas* with babustrades are formed into balconies at every stage for the rooms opening out them.

Though both arcuate and trabeate methods have been used, the trabeate and corbelling methods seem to predominate. The outerwalls of the upper storey have ornamental arcaded panels, but these are not made of arches. The shape of arch is achieved by using corbelled brackets resting on pilasters.



Inner View Of Palace (Plate No. 2.13)

Alcove Paintings in Palace (Plate No. 2.14)

The main entrance and the façade of the palace is very beautifully and well designed.(Plate No. 2.15) The main entrance geteway is in the traditional indigenous style i.e. made of pillar lintel (trabeate) style. It is,

however, superimposed by a fine four-centered pointed arch of the Mughal style, and the gap in between the lower trabeated entrance and the arch above is filled with a corbelled projecting window. The entrance gateway is enclosed within a rectangular margin which contain a series of recessed alcoves.

Ceiling Paintings of Main Gate (Plate No. 2.15)

Paintings in Room of Palace (Plate No. 2.16)

At the lower level the gateway is flanked by two side *asanas* (stone seats) while at the upper level by two pillered kiosks. Above the gateway are open pillared balconies while at the third stage a similar balcony but covered stone *jalis*.

To decorate the outer façade and paint are used. Brown calls it coloured tiles a public entrance while another entrance on the northern is styled as private.

Eaves, Domes and Canopies of Palace (Plate No. 2.17)

The interior breaks up into separate five stories of apartments. In front of them is an open courtyard in middle of which stands five storied structure. There are royal compartments on these stories. Percy Brown concludes that making of the royal compartment was the central features of the entire composition.[54]

One point of extreme importance related to the water supply system to the residents of this large fortress- palace is escaped the notice of the historians of the architecture. No building of such a magnitude could be designed or even imagined without a proper water supply system. Then how the eight storied structure (five underground) could be thought of by the master masions of the periods?

The location of the building on the bank of a lake provided ample source of water. It was depended on the skill of the civil and hydraulic engineers to tap this water. It appears that they got success in their efforts in taping the rain water collected in lake.

The basement rock on which the entire five storied structure stands was excavated by the builders to make subterranean halls and rooms. Similarly, the rear portion was dug out deeper than the water level of the lake located in that direction. It appears that two wells were excavated to tap under current of gushing water of the *jheel*. On the mouth of both the wells two minars were raised upto the level of the apex of the palace. The arrangement appears to have been made at every stage to lift water and supply through channels (nails) to every part of the palace. This is evident from the extant systems of channels available at the upper part of the building.

Lake Behind the Palace (Plate No. 2.18)

Fort of Kul Pahar:

Kul Pahar is combination of two villages namely Kuluhua and Paharia. Formerly, both had separate identities but later on merged into one and popularly known as Kulpahar.[55] This place is part of the district of Mahoba located at 25^0 19 N latitude and 79^0-39 E longitude. This was in the *jagir* of Kehar Singh son of Raja Jagat Raj of Jaitpur and the grandson of Maharaja Chhatarsal of Panna.[56] He erected a fortress palace on the hill. Though it is a small but beautiful edifice. The outer wall of the fort is quite high and looks like a palace. It is a three storeyed building. On the ground floor there are two rectangle windows.

In middle of the wall of the second floor an arch type full size window with two small size windows covered by overhanging. The third floor contains three full size arched openings. On the roof there is a projected balcony rested on four brackets in the middle. (Plate No 2.20)

Fort of Kul Pahad (Plate No. 2.19)

Courtyard and Both Sides Open Veranda (Plate No. 2.20)

There are total six structures- four rested *chhatris* and two open pavilions with semi-circular roof. On the right side of the structure there is an open pavilion with five openings in front and one in side. Above it there is another storey with two openings in

front part is decorated with *Kanguras*. In left side of the main building there is an octagonal structure with small square/rectangular hole. On top of it there is a statue mounted on horse. It is said that the statue is of some Shah who rule over this area in later period. Apparently this structure is later addition because it has no symmetry with the building.

Wall of the Courtyard (Plate No. 2.21)

The open courtyard on the upper storey possesses an excellent wall. (Plate No. 2.21) There are *chhatris* on all four corners and middle wall contains arch openings topped by semi-circular roof with three openings. In middle of every two such structures a *chhatri* is mounted to beautify the outer wall. In one corner of open enclosure an open *tibari* (sitting place with three cross openings) topped by *chhaja* and carved roof was erected. It was a sitting place for enjoying summer evenings.

Fort of Prithvipur:

The fort is located in the south of village Prithvipur in district Tikamgarh at 25^0 13` N latitude and $78^0$46`E longitude. It perches on a flat surface of a mound. It was constructed by Maharaj Prithvi Singh (1736-52) and therefore came to be known after his name. Presently its major parts have been destroyed except north- western part. Since its major part is destroyed therefore it is difficult to know about its entrance gate.

It appears that its main gate was in the north. It is said that there are many turns in the fort and it contains two courtyards.[57] (Plate No. 2.22)

Fortified Wall of the Fort (Plate No. 2.22)

Courtyard of the Fort (Plate No. 2.23)

The fortification wall is made of rubbles with mortar. (Plate No.2.22) The wall has loop-holes and embrasures in three tiers. Besides these, there are square holes on the entire body of the wall. Middle part is projected which also contains holes. On both sides of the wall there are *gumbads* or bastions containing embrasures. There is an open space between the *kanguras* and space for soothing.

Both the courtyards are made of bricks and mortar. There are two rooms with multifoliated arch entrances. There is a *chhaja* rested on stone brackets running over rooms. There is one room on the first floor fronted by a terrace. Above the room there is an open roof. A wall is located in the middle of the courtyard. It appears that it was a royal residence.

Another courtyard is located on the south of the first. This part contains ladies apartment. It's a double storey building. There are one entrance with small windows for light and ventilation. There are three bastions which were meant for guns.

Water was lifted from well and stored in rectangular overhead tank and supplied through channel (*nali*) running parallel to the roof wall.

Barauni Fort:

There are two Baronis : Baroni Khurd and Barauni Buzburg in *tahsil* Datia and located at $25^{0}41`$ N and $78^{0}24`$ E. It is about 6.4 km north-east of the headquarters. In the former place there is an old ruined fort which is said to have been constructed by Bir Singh Dev when it was in his *jagir*. His interest in the construction sector appears to have been developed during the time of *jagirdari* of Baroni.

Main Gate of Barauni Fort (Plate No. 2.24)

The fort of Baroni contains two entrances. The façade of entrance has two storeys. (P. No. 2.25) The ground floor possesses multifoliated arched gate with two side rooms. Two windows of these chambers are opened on each side of the entrance.

A *chhaja* resting on the brackets runs above them. There is an open chamber fronted by three openings on the first floor. Front sides are having windows of big size. It is sided by two chambers with one window on each opened towards front. The roof contains palanquin and escorted by two *chhatris* on each side. Below the *palki* there are four windows. The façade represents the style of the Bundela architecture.

Palenquine Gate of Fort (Plate No. 2.25)

Double Storyed Courtyard of Fort (Plate No. 2.26)

In the side of the former building there is an another complex or may be extension or part of it. The entrance of this part is magnificent. This double arched

darwaza of great height gives the impression of the Buland Darwaza of Fatehpur Sikri. Similar kind of gate is in the inner part. Intermediate part is in closed chambers. The arch patterns in niches in stone are carved out in the wall on both sides but square pattern in lower and upper part. There are square and rectangular holes in these patterns probably for ventilation. In both the corners two structures exist which depict the pattern of *palki* and *chhatris.* The grandeur and loftiness of the entrance gate encourages us to infer that it was probably constructed by Bir Singh Dev after killing Abul Fazl.

In the inner part there is an open courtyard and in one side there is a double storey building. The part on the ground floor is opened with multifoliated arched entrance numbering in five. While the upper storey openings are towards the courtyard topped by *Kanguras.* In front of this there is a place with the jet of sprinklers for enjoying summer evenings.

Similarly, a very beautiful watch tower like small chamber stands on roof. It is made of polished stone with beautiful flower carvings. The roof is designed in semi-circular pattern topped by the *gumbad.* Entrance is decorated with multifoliated arch. In all the flour corners there are decorated circular pillars.

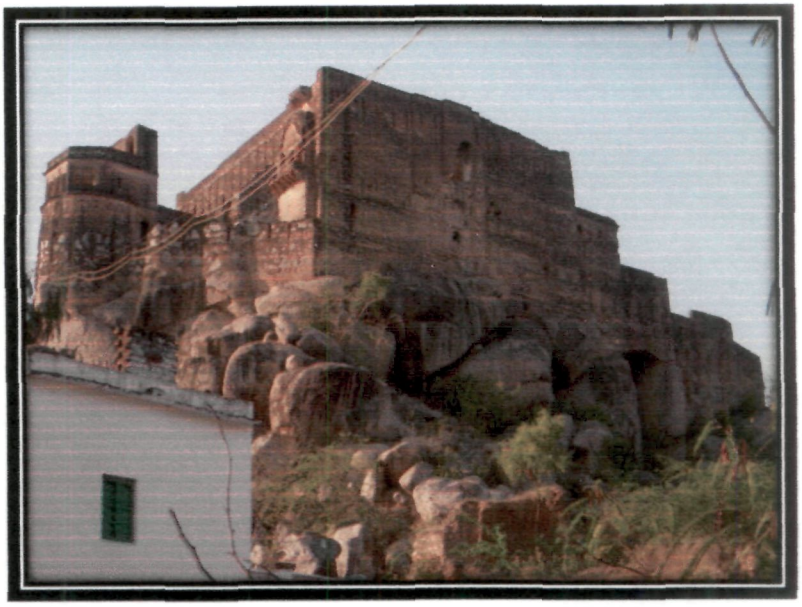
Badi (Buzurg) Baroni Fort:

This fort too is situated in Baroni but abandoned. Since it was colonized in early period therefore it came to know as Badi Baroni. This means that to this fort too belongs to early period. It stands on a hill and its height is about 30 metres from the plain area below the foot of the hillock. The structure is irregular in plan and has many turns. It measures about 150 metres along east-west about 200 metres broad in north.

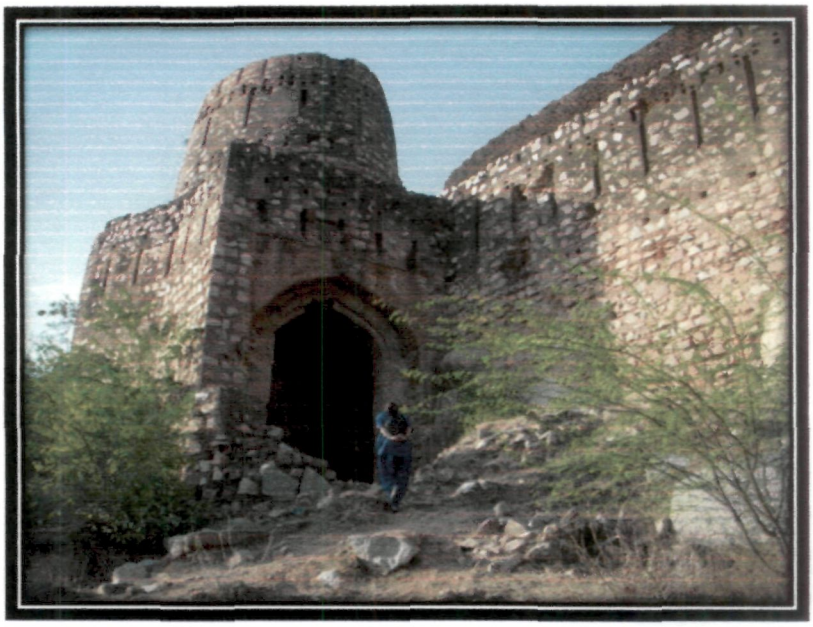
There is only one approach to the fort in the east. But one deceptive space resembles entrance exists between two stone blocks below two turns of the wall. Upper open part is covered with stone slab on which wall was raised. The gap between the two stones was used by the builders to lure the invaders to approach the gate and face attack from above the ramparts.

The battlement wall has much curvature on front side according to the contours of the hill. The wall possesses two and at some places three tiers of loop-holes.

These were designed to provide hidden space for discharging weapons like arrows, spears or cannons. These are in downward position. There are real windows in the fortification wall.



Fort of Buzurg Barauni (Plate No.2.27)



Entrance of Fort (Plate 2.28)

The façade of the top entrance gate possesses space which serves the purpose for pouring hot water and boiled oil over the enemies. Besides, there are loop-holes in the wall for discharging cannons. Thus the entrance gate is well fortified. This fort possesses one unique characteristics that is its four bastions.

Three bastions are located outside the fortification wall but connected through the passage. All are raised on heavy block of stones attached to the parapet wall. If these were not constructed over these stone slabs then they could be used by the enemies to scale the wall. Two are semi-circular while the third is almost circular in shape. All have loop-holes. The third one is bigger in height and contains loop-holes and open gallery on the upper part. The roof provides seating place.

Probably, the bastion was raised to safeguard the entrance gate from the enemey's attacks. The fourth bastion is located on the back part of the entrance which was meant to cover the onslaughts of the adversaries from the back. The lower part of it big in size while upper portion is small. It contains both loop-holes and embrasures.

Inner Part of Fort (Plate no. 2.29)

There are many palatial buildings in the fort-complex but destroyed now. Some parts are visible. In one corner one room in the upper protion which has one oriel window and two side windows. There are two *chhatris* on side while one window topped by *palki* and a *gumbad* still exists. While another chamber's projected balcony resting on brackets is seen. Remaining part is destroyed probably in attacks. There is a place probably for sitting inside the entrance gate. But this has passage in both sides therefore it can be presumed that this place was meant for hiding the soldiers in them. There is a strong possibility that these were connected with adjacent side chambers.

Rajgarh Fort:

Presently, the fort is situated in the district Chhatarpur. It perches on high hillock and located at $24^{0}42$ N latitude and 80^{0} E longitude. It was built by Raja Hindupat (1758-76) of Panna. [58] It entrance gate is north facing. To approach the main gate long and broad flight of steps are provided.(Plate No. 2.30)

Fortified Wall of Fort (Plate No.2.30)

Façade of Palace (plate No. 2.31)

The façade of the main entrance gate is well ornamented with architectural designs and paintings. It has multifoliated arch entrance.(plate No. 2.31)

The provision for sitting on both sides with arch window is made. Above two projected balconies with semi-circular coverings are raised. There is designed verandah in front of chamber. Above it, another chamber with three arch windows. Both the sides of the entrance gate are decorated with the *verandah* on the ground and the first floor. The first floor contains screens. Second floor contains three open arch windows.

Public Court of Palace (Plate No.2.32)

Ornamented Balconies and Room Chamber (Plate No. 3.33)

It has one underground hall which was meant for holding court (Plate No. 2.32). It rests on pillars. On its upper part, there are two rooms and one room in each corner.

Every room is topped by the *chhatris*. There are semi-circular open sitting place in the middle of the roof.(Plate No.2.33) Since the fort palace was constructed in the second half of the 18th century therefore ornamentation is stylish.

We may conclude that the forts not only served the points of defence mechanism but also were the centers of power for the medieval chieftains who resided in the forts with their paraphernalia and military contingents to guard the area under his command or authority. The planning, location and strategical designs of such forts or fortress were made in a way to deter the enemy access to it.

Forts of Chandelas

S.No.	Fort	builders	Year	Location
1.	Garh Kundar	Yasho Varman	925-40	Tkamgarh
2.	Barigarh (Vijaygarh)	Vijay Varman	1040	Chhatarpur
3.	Manijagarh	Yasho Varrm	925-40	Do
4.	Ajaygarh	Jaishakti	830	Panna
5.	Mahoba	Madan Varman		Mahoba
6.	Jaitpur	Samarjit S/o Parmal Dev		Do
7.	Madfa	Chandelas		Banda
8.	Hamirpur	Hamir Dev	289-1508	Hamirpur
9.	Kalpi	Vasho Varma	955	Jalaun

Forts of Bundelas

S.No.	Fort	Builder	Year	Location
1.	Orchha	Rudra Pratap Malhukar Shah	1531	Tikamgarh
2.	Khargpur	Madho Singh S/o Bir Singh Dev	c. 1630	Do
3.	Mohangarh	Udot Singh	C. 1700	Do
4.	Jhansi	Bir Singh Dev	1613	Jhansi
5.	Karera	Do	1618	Shivpuri

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3. Cunningham, *A Tour in Rewa*, op.cit., p.21.
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7. Ibid.
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11. Ibid., pp.30-31.
12. Nadeem Rezavi, Op.cit, p.1236.
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CHAPTER - 3

HAVELIS AND KOTHIS

HAVELIS AND KOTHIS

Palatial Dwellings of Nobles and Courtiers

The study of houses of the nobles, courtiers and the rich people are intimately related to the building traditions of a particular region. These mansions belonged to the wealthy and the respectable people. In other words the types of buildings are determined by the status of owners. These residential complexes were constructed with the material easily available in the vicinity. It is true that the pattern of houses is greatly influenced by the climate of the area. For example, the form of houses of the desert or semi-arid would be different from that of the hilly or *tarai* region. This gets support from Bernier. He elaborates that 'different climates require different styles of architecture'.[1]

The establishment of the Mughal rule in India had a great impact on the field of building construction. Besides the royal palaces, the houses of the aristocrats were built in large numbers in the city. The elites tried to build their houses as luxurious as possible on the pattern of their masters. The regions, which were intimately associated, both politically and socially, followed the Mughal pattern of house building. The Bundelkhand and the States of Rajasthan were prominent among them.

The Bundela rulers of Bundelkhand appear to have taken keen interest in the building of residential complexes for the members of their aristocracy.It is true to some extent that the rulers as well as the members of the aristocracy of the region followed their counter parts of other regions in the field of construction of their residential complexes. The *haveli/kothi* in Bundelkhand was primarily constructed in the sixteenth century by the members of the aristocracy who wanted to differentiate their palaces from the common man. In addition, by constructing palatial buildings they desired to demonstrate their power and their association with royal family. This tendency could be seen after the emergence of Orchha as a power centre in the sixteenth century. Shifting of the capital from Garhkundar to Orchha in 1531marks a beginning in the field of construction of buildings in large numbers there. The accession of Bir Singh Deo Bundela accelerated in the process of the building activities. His reign is characterized as the golden period and he said to have constructed fifty two buildings on the occasion of his fifty-second birthday ceremony but these do not include the houses for his nobles and courtiers.The extant structures of some of these residential complexes in the

forewall of the fort encourage us to hazard that these nobles houses were built under the rulers patronage.[2] Besides the houses within the fort complex, there are others too which are at different beautiful locations.

The majority of these buildings, once precious and valuable possession of their owners are now in dilapidated condition and have lost their grandeur and glamour in spite of protection by the Department of Archaeology. Three reasons may be ascribed for their miserable conditions: one, abandoning of Orchha as the royal centre in favour of Tikamgarh two, incessant Mughal onslaughts on Orchha and surrounding areas three, abandoning of these palatial buildings by the successors of the original owners as suggested by Pelsaert with reference to the palaces of the Mughals nobles. The reason given by him for this neglect is quite interesting:

"Once the builder is dead, no one will care for the buildings; the son neglect his father's work, the mother her son, brother and friends will take no care for each other's buildings.....Consequently, it may be said that if all these buildings and erections were attended to and repaired for a century, the lands of every city, and even village, would be adorned with monuments".[3]

It would be interestingto investigate the question factors responsible for the deteriorated condition of the residential complexes of the nobles and the courtiers of Bundelkhand and the reasons lay behind the detoriation as well as the desertion of these houses. It would also be pertinent to examine the causes suggested by Pelsaert with reference to the houses of the Mughals nobles.

Could we apply the explanation given by Pelseart for the mansions of the Mughal nobles to Those in the region of Bundelkhand? The satisfactory answer could only be obtained from the contemporary sources.

I

Before proceeding ahead, it is essential to know the terms employed for the dwellings of the nobles and courtiers of Bundelkhand. Two terms were generally used to designate these elite houses i.e., *haveli* and *kothi* for example *Noneju-ki-haveli* , *Bakas Rai-ki-kothi*, and *Dauji-ki-kothi* at Orchha. It appears that both the terms were interchangeably employed for these kinds of houses. The definition of the term *haveli* is given by many scholars but in a different way. Sunanda Prasad traces the origin of

the term *haveli* from the old Arabic word *hoowala* meaning partition.[4] Another author equates it with the Persian terms *hawaleh* and *haveli* which mean all round or 'round about. From this the author draws the conclusion that the Mughals used this term for defining a piece of land like the English term 'estate': Initially used for land as estate, later on the term was used for the land along with the dwelling on it.[5] It appears that the above inference of the author does not appear appropriate rather somewhat misleading. There is another Persian term haveli which was employed to indicate the administrative headquarters. There is a strong possibility that the term *haveli* came to be used for the residential complex or mansion of the nobles and courtiers. Ily Cooper defines the building as the 'mansion built around at least one courtyard while Parmar equities it with a large residential mansion.[6]

The word *kothi* means headquarters of its owner. In medieval literature we come across frequently the word *kothi*[7] in reference to the business establishments of the *banias.*[8] They had their business headquarters or buildings in various parts of India. This clearly demonstrates that the word was used to indicate an official building to differentiate other kind of buildings in the cities. Taking clue from this we can presume that in Bundelkhand the term *kothi* was employed to designate the mansion of the state officials. The *havelis* of Bundelkhand, particularly of Orchha, are residential complexes belonged to the state officials such as military commanders, nobles and other ministers.These palatial mansions were symbol of political and social status and were quite different from the houses of common people. They were not only in bigger in size but beautiful from the architectural point of view. They were grand structures appearance and left an everlasting impact on the mind of the onlooker. This of grandeur was maintained by the officials to show their political dominance and their association with the rulers.

The *havelis* or *kothis* at Orchha surveyed by us can be divided into two parts on the basis of their locations: one, mansions (*havelis/kothis*) within the fort complex and two, far away from the forts or the royal palaces but at beautiful locations.

Mansions within the fort complex:

The buildings that have survived from the sixteenth and seventeenth centuries are numerous. These were constructed for various persons and have different lay-out and size. These were styled as the *kothis* and *havelis.*There are many *kothis* in fort-complex of Orchha belonged to various prominent state officials, ministers and the courtiers. These palatial residences have courtyards separate for servants, guests or the *Diwan-i-khas* and for the women or the *zanankhana.* Almost all the mansions had a *baithak* or sitting area which was quite elaborate. In fact it was a miniature form of a ruler's court or the *Diwan-i-aam*. Similarly, provision was kept for space for prominent persons. Thefollowing palatial buildings are found in the fort of Orchha. Some are in good condition while others are in a dilapidated condition.

Dauji-ki-Kothi:

It is located to the south of the Jahangir Mahal, the large fortified complex in the fort. One can observe a very well preserved structure within a separate enclosure. It is a double storeyed building. This offers an excellent example of the Bundela domestic architecture. It is identified as the *Dauji-ki-kothi* by the state Archaeology Department but at has not bearable to recognize the owner of the house.[9]

Gates of Guest House and Lady Apartment (Plate no. 3.1)

The *kothi* is a grand structure quite magnificent in appearance. It is a double storied building which has three courtyards, one court for public (See plate no. 3.2)the second, ladies apartment and third for guests. The doors are opening in all parts in central courtyard (See plate no. 3.1). It is a north facing mansion. Therefore, this magnificent building has one entrance, located in the north.

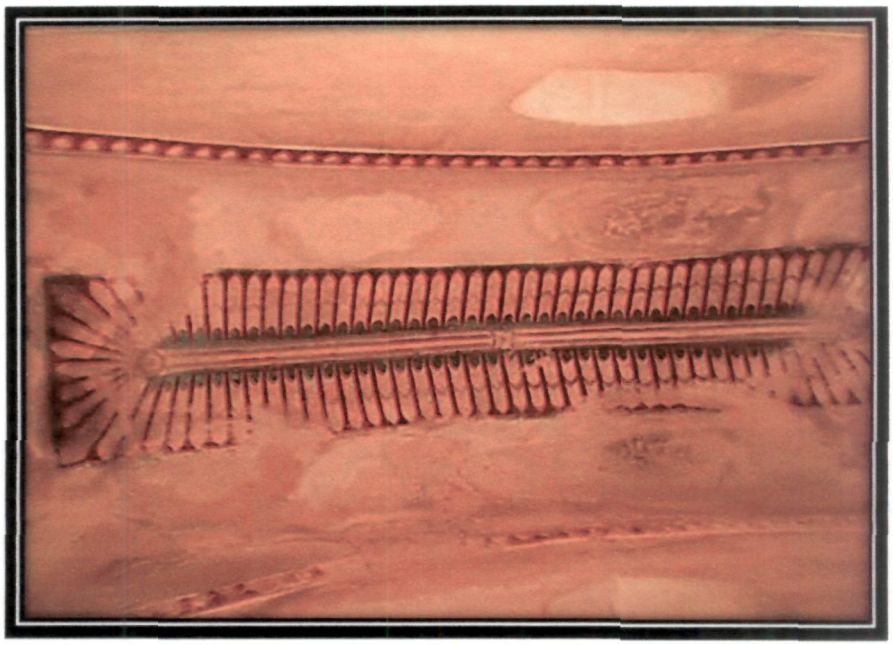
The entrance possesses an archway. Then there is a rectangular wooden gate. In between the arch and the entry gate there are a small platforms on both sides which probably served the purpose of sitting as well to cover the gap between the arch wall and the gate. In this kind of houses of the nobles great significance is given to the entrances as in case of the *havelis* of the Rajput nobles of Rajasthan.[10] The entry into the inner part is not direct. There would be lobby space with a baffle or screen wall. This space varies with the size of the *haveli*. The entrance of the *Dauji-ki-kothi* is indirect to protect the privacy of the inner part.

Inner Side of Public Court (Plate no. 3.2)

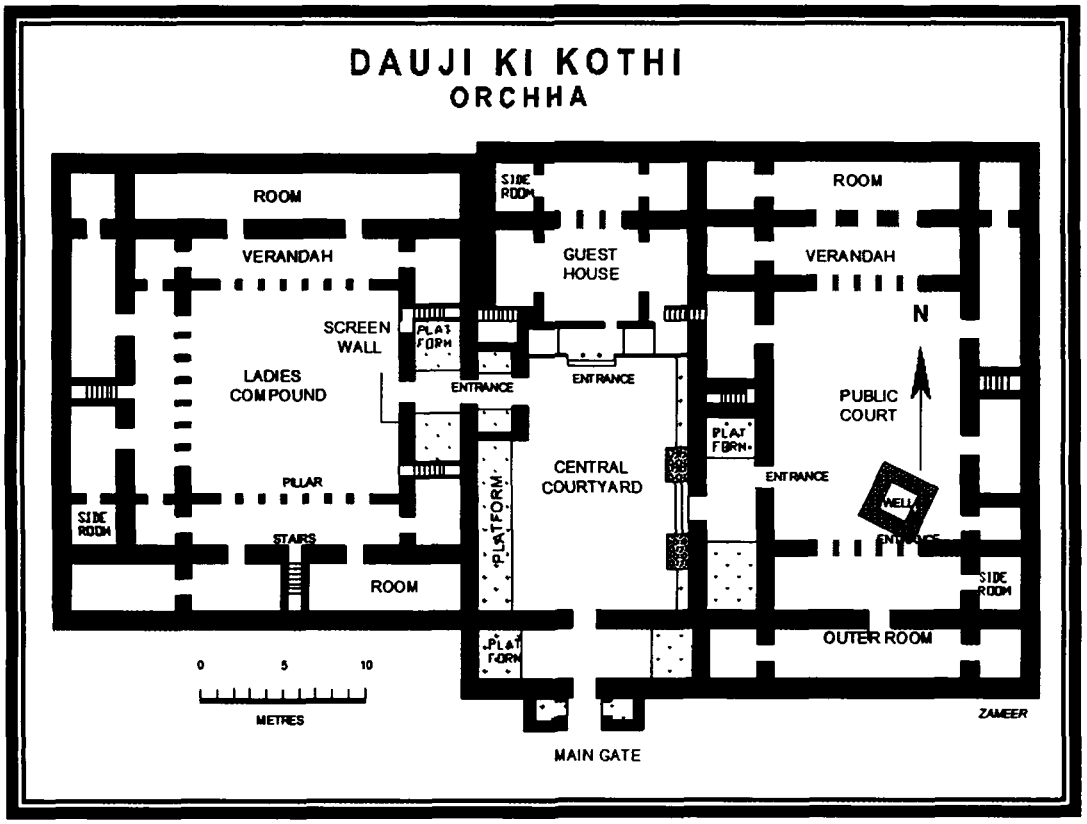
The façade of a mansion is an important part of a building, which generally indicates the social and political status of its owner. The façade of the *Dauji-ki-kothi* is decorated with false niches adorned by lotuses on both sides of the spandrels of archway executed is stucco, Now all rooms are ruined in the portion of court building but entrance gate and a room are still intact. There is a square well built in stones and rubbles.

Main entry gate is three storied, the roof of this gate is semi-circular or *palki,* Carriers by crocodiles (See plate no. 3.3). It is the symbol of bravery. The painting on the ceiling, is in green and red colour is very attractive (See plate no. 3.4).

Palkia Roof of Dauji-Ki-Kothi (Plate No. 3.3)



Ceiling Paintings on the Palkia Roof (Plate No. 3.4)



Dimensions of Dauji-ki-Kothi (Plan no. 3.1):

S. No.	Parts of Structures	Measurement in Mts.
1	Total area of kothi	60.24 X 33.50
2	With of wall	1.20
3	Entrance Breath	1.50
4	Size of Central Courtyard	15 X 10
Public Court:		
5	Length and Breadth of Public Court	31.15 X 19.15
6	Measurement of courtyard	16.0 X 11.35
7	Size of room	8.50 X 2.60
8	Size of side room	4.90 X 3.0
9	Length and Breadth of veranda	11.35 X 3.0
Guest House:		
10	Length and Breadth of Guest House	11.85 X 9.65
11	Size of courtyard	5.85 X 5.70

12	Veranda size	5.85 X 2.95
13	Size of side room	2.95 X 2.40
Ladies Compound:		
14	Length and breadth of compound	26.40 X 23.85
15	Courtyard measurement	12.70 X 12.30
16	Main Entrances of this portion	1.60, 1.50, 1.40
17	Size of room	5.50 X 2.85
18	Side store room	2.85 X 2.85
19	Length and Breadth of veranda	12.70 X 2.85
20	Pillar width	0.60 X 0.35
21	Other rooms size	5.30 X 2.85

Bakas Rai-ki-Kothi:

This *kothi* styled as the *Bakas Rai-ki- kothi* is located on the back of the Jahangir Mahal and on the left side of the Rai Praveen Mahal (See plate no. 3.5) Moreover, the proximity of the palace to the River Betwa further multiplied enhances its beauty. The location of the *kothi* conveys the status of its owner in the official hierarchy. No doubt, the owner of the house was holding a very important position in the Bundela nobility.

Bakas Rai-ki-Kothi with Public Court (Plate No. 3.5)

The entire structure is built of *lakhauri* a brick except the boundary wall in which rubble is used. The outer as well as the inner walls are well plastered with lime mortar. The use of bricks is unique which makes it distinct from other structures located in the fort complex. Use of stone is quite scarce.It is a double storeyed building, which has two entry points; the main entrance and another entry through a narrow passage. The front of the building is quite charming and beautiful.

Well in the Courtyard (Plate no. 3.6)

Ladies Apartment in Kothi of Bakas Rai (Plate no. 3.7)

The building is divided in three parts *Diwan-i-aam* (see plate no.3.5), a guest house (See plate no. 3.6) inside the building and ladies house (See plate no. 3.7) in the back side. This is the only *haveli* which has a garden with square flower beds which is watered by a circular well made of *lakhauri* bricks with rings. A *hauz* is also built near the well (See plate no. 3.6).

To the rear of this *haveli* there is a separate double storied building which has an underground spacious room meant for use in the summer season. Though a major part of the building is in a damaged condition. The remains indicates that it is a well-planned *kothi* for the high-ranking minister.

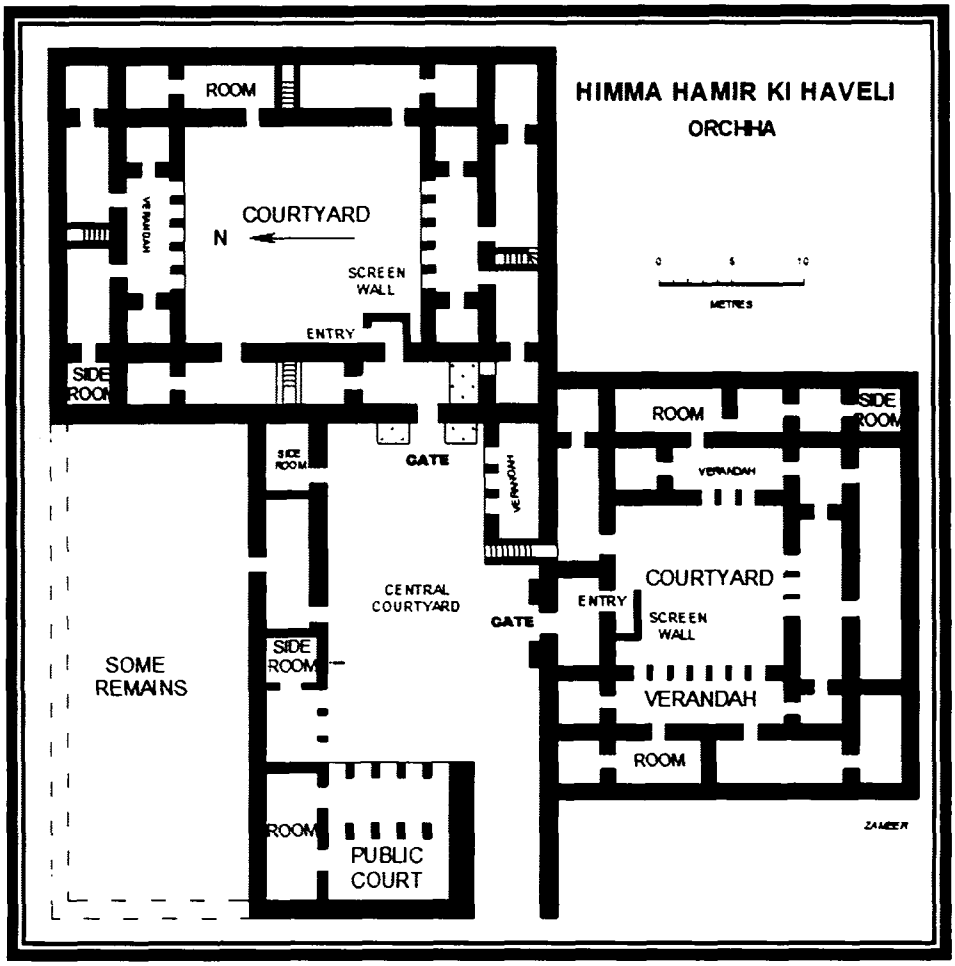
HimmaHamir-ki-Kothi:

The *Himma Hamir-ki- kothi* is a towering residential complex located behind the Raj Mahal built by Madhukar Shah in about 1575.It houses many buildings which appear to have been built at different point of time. It is the compound of three courtyards with two entrances. Near *palkia* door entrance there is a one three storey watch tower (See plate no.3.8) like structure which makes it an attractive building.

High Tower and Palkia Gates of the Kothi (Plate no.3.8)

Outer View of Public Court (Plate no. 3.9)

Public Court and its Pillared Pavilion (Plate no. 3.10)



Dimensions of Himma Hamir-ki-Kothi (Plan no.3.2):

S.No.	Part of Structures	Measurement in Mts.
1	Total area of haveli	60.0 X 60.0
2	Width of wall	1.20
3	Breadth of Entrances	1.50
4	Area of central courtyard	23.20 X 14.50
5	Side veranda size	6.12 X 3.0
Public Court:		
6	Total area of Court	9.45 X 8.45
7	Side room size	8.75 X 3.50
8	Width of pillar	1.50 X 0.55
South Side Building:		
9	Total area of this part	27.20 X 23.38

10	Courtyard	11.70 X 10.97
11	Three door opening veranda	7.70 X 2.90
12	Seven door opening veranda	11.70 X 3.0
13	Side room	3.0 X 3.0
North Side Ladies House:		
14	Total Length and Breadth	33.10 X 23.10
15	Size of Courtyard	16.10 X 14.50
16	Veranda	8.0 X 3.0
17	Length and Breadth of room	6.6 X 3.0
18	Size of side store room	3.0 X 3.0
19	Width of pillars	1.0 X 0.50
20	Width of Inner wall of room	1.00

Havelis outside the Fort complex:

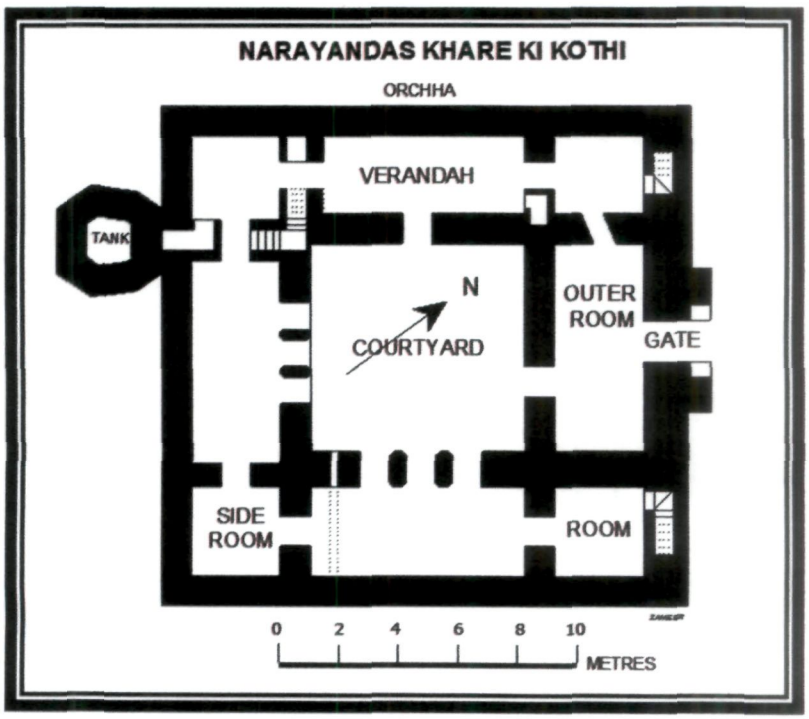
The mansions of prominent state officials and ministers are extant at different locations of Orchha. It is difficult to say that why these *havelis/kothis* were built outside the fort complex. Was there any political reason behind their location or whether the owners of these palatial buildings were allotted better locations for their residences? The last reason appears more plausible. We come across numerous *kothis* of prominent persons who were holding important positions in the official hierarchy. These structures are magnificent both from the point of view architecture as well as dimensions. They are magnanimous structures within a separate enclosure. Following are the residences extant in different locations of the capital city surveyed by us:

Narayan Das Khare-ki-Kothi:

The *kothi* was constructed at an extremely beautiful site. The site selected for the residence had numerous good points. It had open space all around and built on a ridge on the bank of a lake, which provided it a clean environment and the provision for continuous water supply. The presence of the lake imparted an additional beauty to the building. The most striking point is its location in front of the Luxmi temple, built by Raja Bir Singh Deo.

The *kothi* of Narayan Das Khare, is built according to a square plan having a three storeyed entrance. Decorated outer arched façade has vertical series of niches and full-blooded lotus on both sides of doorway. Three arched windows are topped with palanquin or semi-circular roof. The square courtyard has rectangular rooms on both the sides'which are in a dilapidated condition. Stylistically the *haveli* belongs to the seventeenth century (See plate no. 3.11)

Inner View of Narayan Das-ki-Kothi (Plate no. 3.11)



Dimensions of Narayan Das Khare-ki-Kothi:

S.No.	Parts of Structures	Measurements in Mts.
1	Total area of kothi	17.70 X 16.75
2	Width of wall	1.00
3	Size of Courtyard	7.20 X 6.95
4	Veranda	7.20 X 2.80
5	Outer room	6.95 X 3.0
6	Room in side	6.75 X 3.0
7	Side Room of outer room	3.0 X 2.60
8	Breadth of entrance	1.40
9	Diameter of well	3.00

Since he was *Kayastha* by caste,[12] there is a strong probability that he was holding the important post of the record Keeper or *Lekhpal* or that of the Revenue Minister (*Diwan*) of the state. He was keeping accounts of income and expenditure therefore his three storeyed palatial building was located in front of the temple of Laxmi, the Goddess of the wealth Luxmi.

Kripa Ram Gaur-ki-Haveli:

Kripa Ram Gaur was the military commander of Bir Singh Deo. He was the son of a brave soldier Jadau Gaur who also served the Orchha ruler. Keshav Das, a contemporary poet of Bir Singh Deo and his predecessors, writes very highly about Kripa Ram. He writes that the Raja handed over the responsibility of the safety of the state in the hands of Kripa Ram. He had commanded respect as a brave soldier among the people of Bundelkhand. Seeing his qualities Bir Singh Deo appointed him as the *Senapati.*[13] He accompanied Bir Singh Deo in his wars and campaigns against the enemies.[14]

The residence of the military commander was located near the *chhatris* of the Bundela rulers. Though it is in complete ruins except the entrance, from the gate and the remains one can conjecture about its huge size. The entrance gate is quite eloquent of the good times the residence had witnessed (See plate no.3.12).

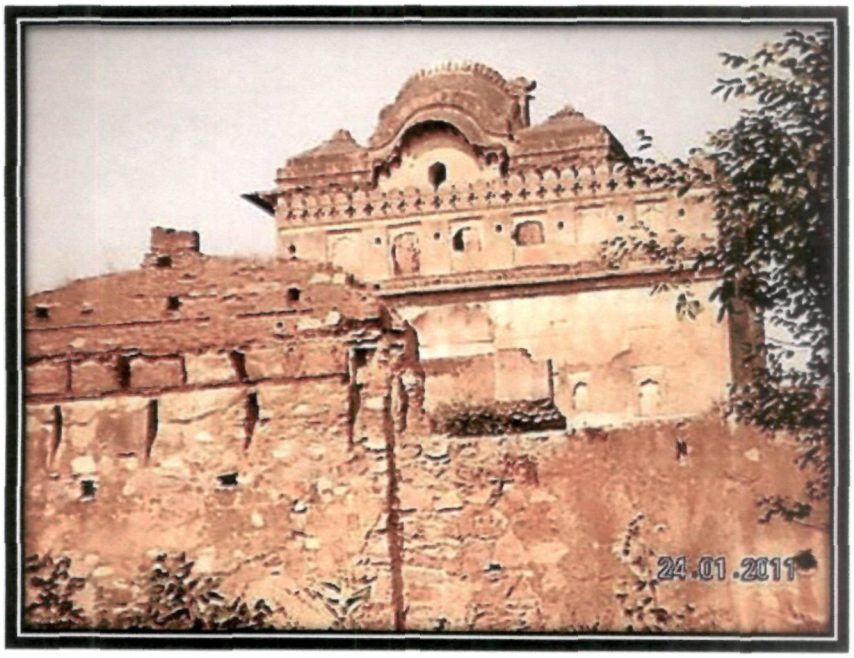
Main Gate and Paintings on Ceiling of Kripa Ram Gaur ki- Kothi (Plate No. 3.12)

Noneju-ki-Haveli:

This palatial residence (See plate no. 3.13) of an officer of Bir Singh Deo is located behind the Irrigation Rest House on the bye-pass road. We do not come across any reference about the person of this name therefore it can be inferred that it was a popular name of a person whose real name was lost under popularity. It is said that he was the governor of the Bundela chief and belonged to the *Bargujar* clan.[15] It is an excellent residential complex and stylistically belong to the seventeenth century.

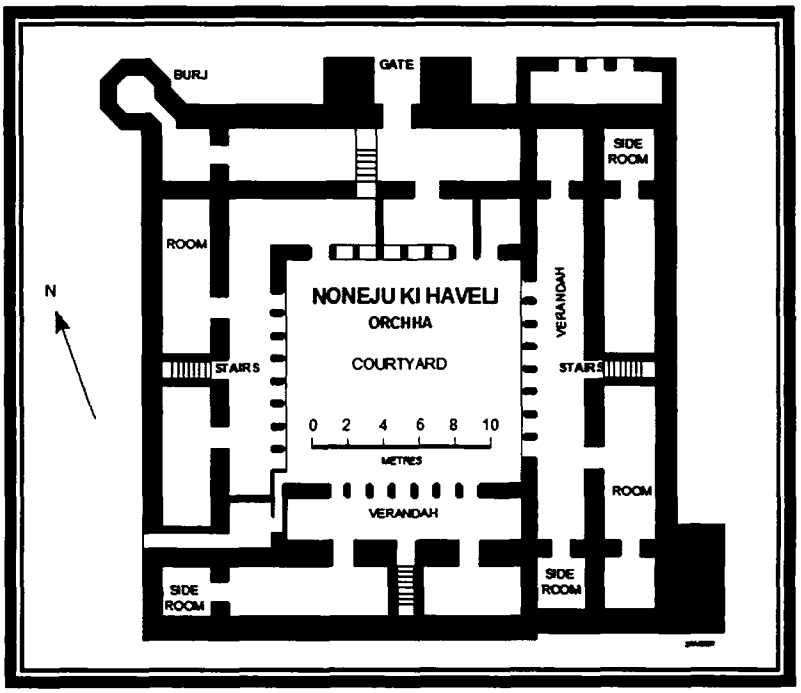
Fortified Burj of Haveli (Plate No. 3.13)

The entrance is north facing and its walls are fortified (See plate no. 3.14). This characteristic leads us to believe that ait belonged to a very important official of the state who appears to have been associated with very sensitive departments such as home or defence affairs. However, the residence is quite big in size and symmetrical in lay-out. It is also located on the corner of the natural lake like *Narayan Das Khare's haveli*.



Back View of None Ju- ki-Haveli (Plate No. 3.14)

In front of the complex there is a step well which was used both for irrigation as well as for domestic purposes. The site selected for the house of Noneju was good for mainly two purposes namely clean and healthy environment and provision for unhindered regular water supply for daily needs. The situation on the bank of a lake not only enhances its panoramic view but keep house cool in summer. In another words, these kinds of residences could be called hill-residences.

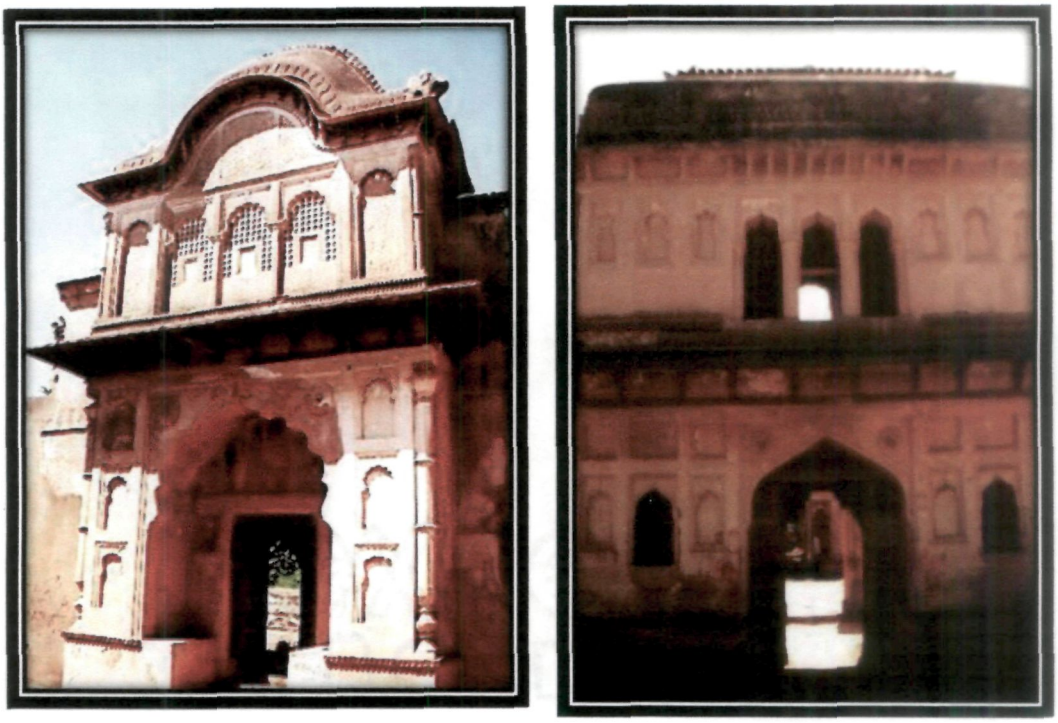


Dimensions of Noneju-ki-Haveli:

S. No.	Parts of Structures	Measurement in Mts.
1	Total area of *haveli*	31.65 X 29.80
2	Entrances of Gate and room	1.80, 1.50
3	Width of wall	1.10
4	Size of courtyard	13.15 X 12.30
5	L. and B. of veranda	13.15 X 2.35
6	Outer and inner room size	8.0 X 2.90, 8.55 X 2.77
7	Size of side room	2.90 X 2.90
8	Stairs of building	0.95
9	Width of pillars	0.80 X 0.35
10	Inner wall width	1.0
11	Diameter of fortified *burj*	5.00

Facades:

Great significance appears to have been given to the façade by the contemporary architects of Bundelkhand. The design and pattern of the façade is generally determined by the overall size and layout of the residence but sometimes personal desire and fancy of *haveli* owner for particular form was also accommodated. The architecture of outer *haveli* façade is said to have based on the inner courtyard plan. We came across different varieties of the facades in different *havelis*. Our effort is to document the various forms and designs used in the facades of the *havelis* surveyed by us at Orchha and other places.



Palenquine and Entrance Gates of Dauji-ki-Kothi (Plate No. 3.15)

The outer façade of all the *haveli* or *kothis* are similar in composition. The multifoliated arch is found in the *Himma Hammir-ki-kothi* (See plate no. 3.16), *Dauji-ki-kothi* (See plate no. 3.15), *Bakas Rai-ki-kothi* (See plate no. 3.17), *Noneju-ki-haveli* (See plate no.3.19) and *Narayan Das Khare-ki-kothi* (See plate no. 3.18). Besides these dwellings, there are numerous unidentified residences which also contain identical arches. In addition, the façade is decorated with false arches adorned by lotuses on both corner sides of the spandrels of archway executed in stucco. Similar kind of lotus petals are found all over Rajasthani *havelis*.

Tower and Palquine Gates of Kothi (Plate No. 3.16)

Palenquine Gate with Hanging Jharokha (Plate No. 3.17)

The sand stone *chhajjas* supported on carved stone brackets are found in all the *havelis* of the nobles. The only difference is number of *chhajjas*. Single storey building possesses only one *chajja* while the number of *chhajas* were increased with the increase in the storeys. As in the case of *Himma Hamir-ki-kothi*, and *Dauji-ki-kothi* which contain two *chhajjas* while that of *Narayan Das Khare-ki-haveli* possesses three *chhajjas*. Two kinds of the overhangs or *chhajjas*are found in the *havelis* of Bundelkhand: one straight stone slab and other carved slab.

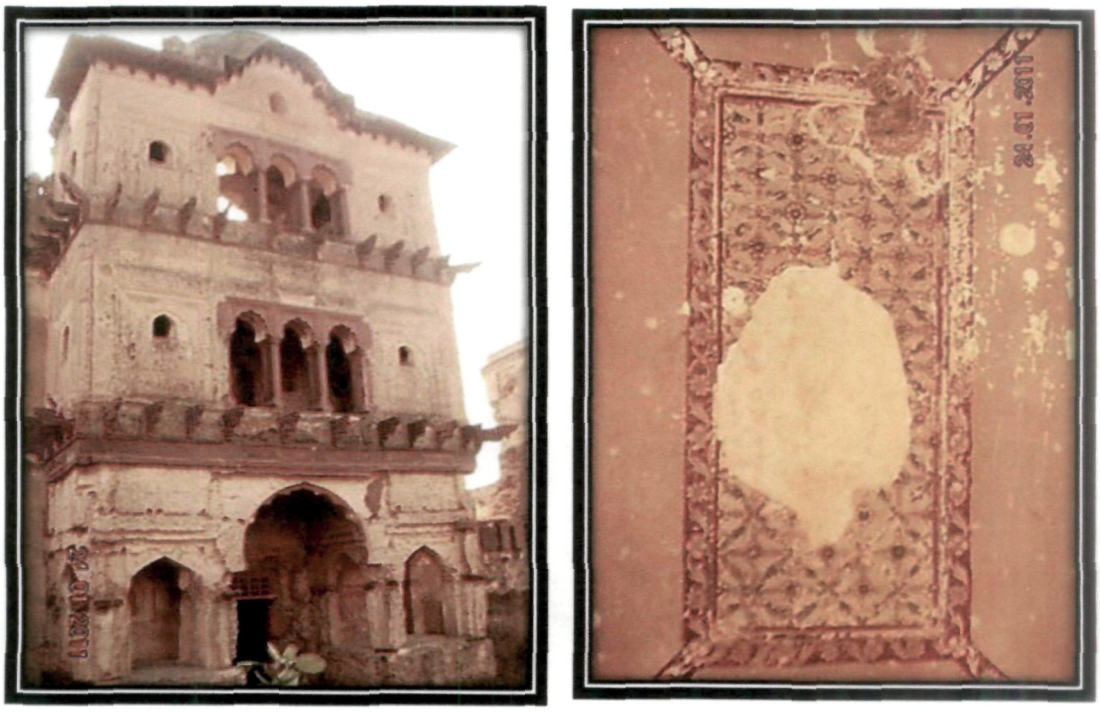
Main Gate with Elephant Brackets (Plate No. 3.18)

Besides *chhajjas* the stone brackets appear to become essential elements in these houses of nobles and courtiers. They had become fundamental part of the composition of the facades. In the houses the brackets of various forms are found Some patterns are often floral, in the shape of birds and animals or elephants head with trunk. All the *havelis* or *kothis* of Bundelkhand have stone brackets.

The front of the *havelis of Narayan Das Khare*, *Bakas Rai-ki-kothi* and *Noneju-ki-haveli* are three storied while that of Himma Hammir, Bakas Rai, Kirpa Ram and Dauji's residences have two storied. All dwellings have multifoliated arches and on the front wall of Khare, Dauji and Himma Hamir there are three decorative multifoliated arches which enhance beauty of the entrance. In almost all the entrance seating place on both sides are provided.

But in the *Noneju's haveli* the space for *baithak* is bigger than others. This sitting place has two arch openings on either side: one is in front while other is inside.

The first story of all the dwellings except Dauji contains one chamber with three arch openings in front side. The *havelis* of Narayan Das Khare and Noneju have red sand stone openings. The former contains one rectangular window and one small circular openings on the window in both the side wall. While that of Noneju possesses two arch openings in the front portico while two in the side wall. Obviously these served the function of ventilation but also enhance the aesthetic beauty of the building. The *Dauji-ki-kothi* contains five arches. Two corner arches are false while remaining three have one decorative rectangular space in all and the from the bottom up to the upper part the pattern contain squire wholes which give the impression of *jali*. These screens seem to have served two purposes; to provide air and light in the chamber andfor keeping out to see the activities in front of the *haveli*. The symmetry in the pattern of second floor of the *havelis* of Noneju and Khare is maintained except one arch is opening in the middle of the former while rectangularopening in the middle of the latter.



Main Gate and Paintings on Ceiling of Haveli (Plate No. 3.19)

There are some common features invariably in all the houses of nobles. They all contain *Bangla* roofs and semicircular, is called *palki* roof in Bundelkhand. This is carved roof which enhances beauty of the building. The overhangs or *chhajjas* are found in all the dwellings. These are of red sandstones slabs invariably straight slabs. These over hanging are supported by variety of carved stone brackets. It appears that the *chhajjas* and the brackets have gained the status of an essential part of the façades of the noble's residence. Besides different varieties of bays or openings in the walls of the building also assumed significance to enhance the aesthetic beauty of the façade.

One of the features of *Noneju's haveli* makes it a distinct residential complex thus other compounds. There are *kanguras* on the top of the parapet sidewall, which are considered as the symbol of royalty. Therefore, it assigns a special status to this *haveli*.

Entrance:

The entrance gate has always been considered auspicious. The local term for the entrance gate is *pol* from the Sanskrit word *pratoli* and entrance space is called *poli*. The space is of two kinds in the Bundelkhand *havelis* direct and indirect with a screen wall. This indirect entrance is to protect the privacy of the inner court. Almost all the *havelis* have indirect with the screen wall (See plate no. 3.20).

Screen Wall in Kothi (Plate No. 3.20)

The *Bakas Rai-ki-kothi* contains three entry points: one, main entrance gate with screen wall two, a side entry from the right side of the main gate and third, arched openings towards road. These entrances were probably meant for three different purposes. Main gate was for ceremonies and for high-ranking people. The side passage was particularly for women, which also lead to upper story. There is a *chhajja* on it and above the over hanging there are three arched openings. While the third arched opening towards road, was for general audience. This entrance was opened in the courtyard which was probably functioning as the *Diwan-i-aam.*

The second floor of the main entrance has three multifoliated arch openings. The similar pattern is followed in the third floor but it contains one-opening over the middle opening. Third gate is in the form of projection. The main wall is about three feet behind this wall. The *chhajja* runs on both the walls on both the stories.

The main entrance of *Kirpa Ram Gaur-ki-haveli* is built with bricks and lime mortar. It has the double storeyed gate. The arched facade and the stone doorjambs are carved with brackets of Rajput style. There are three arched windows on the first floor having roof shaped like back of an elephant.

The entrance of *Noneju'shaveli* is built with bricks. In the left side of it there is a veranda with three arched openings and two on either side are closed. Probably, this was for sitting purpose. In the corner of the right side of the wall, there is an octagonal three storeyed chambers and rectangular chamber. In all the storeys, there are holes of different sizes. The octagonal chamber contains *kangura* type patterns on the top. The building look-like fort-palace in appearance.

The *haveli* of Narayan Das also contains three storeyed entrance gate. It is decorated with vertical series of niches. Three arched windows of the second and third are topped with palanquin roof. It has also screen wall in front of entrance.

Main entry gate of all the residential complexes are of red sand stones. Some have pointed arches but others are plain stone slabs, there are niches at the top of the entrance which is reserved for one or other kind of god or goddess.

Courtyard:

The *havelis* or *kothis* of Bundelkhand range from a single courtyard formto, two and three courtyards. Majority of *havelis* contains one or two courtyards generally correspond with the higher status of the residence. Since it is said that the *havelis* located in the fort complex and outside were constructed by the Bundela chief Bir Singh Deo therefore it can be inferred that these dwellings were erected keeping in mind the status of their future occupants. This factor determined the size and the expanse of the residence.

Almost all the palace like dwellings of nobles and courtiers at Orchha are double storeyed building complex. The ground floor consists of one, two or three courtyards and flanked by the veranda in two or three sides. In some cases there are closed chambers with one or two openings. It all depends on the availability of the space.

Courtyard of Narayan Das Khare-ki-Kothi (Plate No. 3.23)

The *kothi* of Narayan Das Khare has a squire courtyard. There are rectangular rooms on three sides. The front and the left side rooms have two openings while the right side has a single entry point. To maintain symmetry in the square plan, a rectangular covered space in front of the entrance gate of same size of the front room was left. This also served as the screen wall. All the three side rooms have side rooms of uniform size, covering on area.

Since the upper story has suffered total destruction except the entrance, it is difficult to know its plan. But probably the details of the upper storey were almost similar.

The *haveli* of Kirpa Ram Gaur is in ruins but it becomes clear that it had a square courtyard. It must have been surrounded by rooms and verandas.

Courtyard of Noneju-ki-haveli (Plate No. 3.22)

The *kothi* of Dauji is a double storeyed building. The ground floor consists of two square courtyards. A conspicuous feature of this *kothi* is that there is a complex attached to it. It appears that it was for the official use. In the centre of this complex there is a circular platform probably meant for the officer for discharging his official duties. In its back there are two open chambers with three openings. There is a fountain in front of the veranda attached to the side rooms on the left where probably official used to sit in cool atmosphere. An attached of official complex with the *kothi* demonstrates the high status of its owner.

Courtyard of Dauji-ki-Kothi (Plate No. 3.24)

Courtyard of Bakas Rai-ki-Kothi (Plate No. 3.21)

The grand palatial *haveli* of Himma Hamir has three courtyards, a central compound to receive guests and hold meetings with them, another inner most one southern compound probably for the women and the eastern compound probably for the private meetings like a *diwan-i-khas* of the Mughal palaces.

Courtyard of Himma Hammir-ki-Kothi (Plate No. 3.26)

Reference:

1. See Bernier, *Travels in the Mughal India*, 1656-58, tr.A. Constable (reprint), Delhi 1968, p.240.
2. The presumption of Shikha Jain about the initiation of the builder of*havelis* by the Rajput ruler of Rajasthan to provide an ideal accommodation to their courtiers and nobles does not hold much water. There may be strong possibility that the land for the houses to the nobles was allotted by the ruler according to their status but the construction of residences for them appears a remote possibility, *cf. Havelis, A Living Traditions of Rajasthan*, Gurgaon, 2004, p-15 But this presumption can be applied in the case of Orchha because of the location of these houses.
3. F.Pelsaert, *Jahangir's India*, ed.& tr. W. H. Moreland and P.Geyl (reprint), Delhi,1972, p-56. Also see, Ahsan Jan Qaisar, *Building Construction in Mughal India*, Delhi, 1988, pp.3-4;Safiya Khan, Havelis And Kothis of Orchha, *Special Themes of India and World History*, Bhopal,2012.

4. Sunanda Prasad, *The Havelis of North Indian Cities,* unpublished study for the *Visual Islamic Art unitof the Royal college of Art*, London as quoted by Shikha Jain ,op cit., p. 20.
5. Shikha Jain, *Havelis*, p. 20.
6. The definition given by Ily Cooper V.S Parmaris quoted by Shikha Jain but does not give reference about the books. op. cit., p. 20.
7. Yati Nihal, *Bengal Desh-ki-Gajal*, in Shri Nagarvarnatmak Hindi Padhya Sangrah, ed, Mani Kanti Sagar, Surat, 1941. P-49.
8. B.L.Bhadani, *Peasants, Artisans and Entrepreneurs-Economic of Marwar in the seventeenth century*, Jaipur, 1999, p-348.
9. The house is identified as the *Dauji-ki-kothi* by the State Archaeology Department of Madhya Pradesh. A Board is there on the site giving some information about the building.
10. Shikha Jain, *Havelis*, p. 60.
11. Percy Brown, *Indian Architecture, (Islamic Period),* p. 129.
12. Narain Das Khare was also an officer at the time of Bir Singh Deo. Since he was Kayastha by caste therefore translator of *Bir Singh Charitra* records his name as Narain Das Kayastha, Chiranji Lal Mathur, p.59.
13. Keshav Das, *Bir Charitra*, p.79
14. Kirpa Ram Gaur took part in war against the army of Ram Shah. Alongwith him three other military officers took part namely Jadau Rai, father of Kirpa Ram, Damodar, and The son of Mukut Gaur of *Bir Singh Charitra* (English), tr. Chiranji Lal Mathur, pp.54-5
15. Many persons were given *saropas* on the occasion of the coronation of Bir Singh Deo. Among them there were two persons who belonged to the *Bargujar* clan namely Basant Rai and Champat Rai : There is a possibility that one of them was Noneju. Cf. *Bir Singh Charitra* (tr.) Chiranji Lal Mathur.
16. Shikha Jain, op.cit., pp. 78-9.

CHAPTER - 4

GARDENS

GARDENS

The gardens were an integral part of the buildings of Bundelkhand. The tradition of laying-out garden has a long history in India. The information about the planting of shady trees is available during the time of Asoka.[1]The tradition of laying out gardens appears to have continued in later centuries. Our paintings bear ample testimony to it, and it is reinforced both by the existing remains, literary sources and inscriptions.

The evidence of gardens is also coming from the Bundelkhand region. Our study is primarily based on the inscriptions, literary compositions and the physical remains of gardens. Many motives appear to have been behind the laying out of gardens. Large gardens were built either to enhance beauty of the building or to make the environment of surroundings cool, clean and refreshing. Besides, it is interesting to note that gardens, designed as an independent units, or as those which formed part of a house or any religious establishment, were similar as far as basic details are concerned.[2]

During the time of the Chandelas we get inscriptions which furnish information about gardens. There term *vatika* is employed for a garden.[3] A follower of Jain religion named Pahila (Pahilla) presented seven gardens to the temple of Jinanatha at Khajuraho during the time of the Chandela ruler Dhangadeva in v.s.1011/A.D. 954. He dedicated seven gardens which were separately named such as one, *Pahilla-Vatika,* two, *Chandra Vatika,* three, *Laghu Chandra-Vatika,* four, Sankara-*Vatika*, five, *Panchaitala-Vatika,* six, *Amra-Vatika* and seven, *Dhanga-Vatika.*[4] The names of the gardens throw interesting light. The first garden is designated after the donor himself and number two and three after the Chandratreya i.e., Chandela house. Number seven is named after the name of king Dhanga. Fifth garden *Panchaitala-Vatika* could not be identified. One significant point emerges from the stone-document that the donor of these gardens made request to king Dhanga that the reigning house of this region should make arrangement for the safety of these gardens after the end of his family.[5]

The motive behind the presentation of seven gardens to a temple appears to have been to provide pleasant and soothing environment to the pilgrims. Secondly, it can be inferred that the garden was an important component of the temple. We are getting similar evidence from the area adjacent to Bundelkhand. Maharajadhiraj Vikramasimha made donation of a tract of land and a garden with a well to the Jain

temple and the monks.[6] From this evidence it emerges that a well was attached to the garden for watering it. An inscription coming from Narwar furnishes us a significant information. A person named Palhaja of Mathur clan of Kayastha, constructed a *dharm-sthans* (sacred place), that is a temple of Sambhu (Siva). Alongwith it he built a stepwell and also laid out a garden in V.S.1355/A.D.1298 in memory of and for the spiritual benefit of his younger brother who had predeceased him.[7] From these epigraphic data it is testified that gardens were ordinarily part and parcel of temples or any religious establishment.

Gardens were laid out by private persons as well as by the Chandela rulers and donated or gifted to temples. But we do not come across any evidence about the gardens meant for enjoyment and pleasure for the rulers, nobles and ministers. But since there was the tradition of laying out of gardens therefore it can be presumed that such kind of gardens were existing during the time of the Chandelas.

The Bundela rulers continued the traditions of laying out of gardens to beautify buildings and make the environment congenial. This can be seen after the establishment of capital at Orchha in 1531. Royal palaces and other buildings were erected during the time of Bharti Chand (1531-54) and Madhukar Shah (1554-92). By this time Mughal rule was established by Babur and consolidated by Akbar.

Gardens became an integral part of the Mughal life and acquired the status of essential part of city planning.[8]The credit goes to Babur who introduced well-planned layouts of gardens. Abul Fazl wrote (*c.*1595) that "in the past" the flowers in the Indian flower gardens (*bustan-ha)* were sown without any arrangement,and it was with Babur that avenues along flowerbeds (*Khiyaban-bandi*) and well planned layouts (*tarai aria*) were introduced.[9]

There is strong possibility that the Mughal gardens at Agra and other places had impact on the minds of the regional rulers. They appear to have imitated and laid out gardens in their respective areas. The Bundela Chief Madhukar Shah joined the Mughal service and used to visit Agra frequently. His interest is reflected in the number of gardens which came up in Orchha. He laid out *Rambag* near Bhanderi Darwaja where saints were supposed to rested with Ram Raja. Besides this, he raised many gardens namely, *Chandraban, Madhuban and Panchban* located to the north-west of Azad's place. These were constructed to beautify the rugged outlines of Orchha.[10]

Intimate relationship between Jahangir and Bir Singh Dev opened a new chapter in the history of Orchha. He was granted the *mansab* of 5000 *zat*and 5000 *sawar*.[11] On the occasion of the investiture ceremony of Bir Singh Dev the Mughal emperor himself came to Orchha. He started constructing the Jahangir Mahal to receive his lord and decorated *Phool Bagh*. The Bundela Chief utilized this opportunity in constructing a large number of buildings. Apart from the buildings erected in his own territory, he raised numerous edifices at Agra, Mathura and Brindawan. In addition to buildings, he laid out gardens at Agra and Brindawan. The names of some of them such as the Bundela Bagh at Agra and *Chaturanan (Krishna) Bagh, Futella Bagh* and *Vyas Bagicha* at Brindawan can be cited.[12]

Garden Painting on the Roof (Plate No.4.1)

Apart from the *Phool Bagh*, we do not know about the gardens laid at Orchha by Bir Singh Dev. Then the poet Keshav Das comes to our help. He records the existing of gardens at Orchha while describing the pleasure trip by Bir Singh Dev and his wives. He employes two terms for garden: *upwan*[13]and *bagh*.[14]

Keshav Das writes that Bir Singh Dev, "used to visit garden (*upwan*) alongwith his wives. Flowers are in full blooms in spring (*vasant*). All wives of the Maharaja went to gardens for stroll. Atmosphere of surroundings is full of fragrance.

There are varieties of flowers which attracted birds. Peacocks and parrots, and various kinds of birds are dancing and singing and providing natural melody and making the atmosphere very pleasant[15] for stroll".

Another Bundeli Painting of Garden (Plate No.4.2)

The Bundeli paintings (Plate no. 4.1 and 4.2) also supports the existence of gardens. The floral and creeper designs are found in the tombs of Chhatrasal and his queen at Dhubela. Various kinds of birds are shown on the branches of a tree which indicate the existence of gardens.[16] In addition, we have found remains of numerous gardens in Orchha, Datiya and other places. As we find descriptions about gardens in literature,we attempted to locate these gardens in these places.Fortunately we found some and made extensive survey of these remains. Prominent among these are Rai Praveen Palace Garden, Phool Bagh, garden in the *chhatri*-complex and one in compound of the Datia fort. Some of these are still in good condition while others are in very miserable condition. On the basis of our fieldwork the gardens could be categorized into three types:

(i) Pleasure gardens of the rulers;

(ii) House-gardens of senior nobility and the rich

(iii) Cenotaph garden

Rai Praveen Palace Garden:

Rai Praveen Palace Garden is located in the fort complex of Orchha. This palace is named after the beloved wife of Indrajit. He had constructed a separate residence in the back of the Jahangir Palace for his beloved.

A View of Rai Praveen Garden (Plate No. 4.3)

Lake View from Balcony (Plate No. 4.4)

It is a double storey building. In front of this palace, a garden was laid out. The garden is divided into two parts by a wall. Two separate buildings were erected in each part of the garden meant for rest after a stroll.The building on the western side garden is

double storied and on its back there is a sitting place (*baithak*) for Indrajit and Rai Praveen. There is a strong possibility that there was a lake (Plate No. 4.4) and a stepwell in its corner below the *baithak* for irrigating surrounding area. There was a passage in the building opening towards this water monument. It is a well planned or in Babur's words 'orderly and symmetrical' garden enclosed by a high wall with battlements and lofty entrance gateway.

Both Side Tank of Platform (Plate No. 4.5)

The eastern side is divided into three sections by pathways or walks in between. Each section contains small octagonal flowerbeds for planting flower bearing plants. One section contains 154 parterres or flower-beds. Remaining two other sections contain 72 flower-beds. The garden on the western side is divided into two sections. One section contains 56 flower-pots while the other part has 85 pots (Plate no. 4.5)

There is a platform meant for sitting in the front of gate. On the right side of the platform there is an octagonal small cistern which contains fountain in its middle. Water is an essential element for watering numerous flower-beds.Therefore, a well was excavated adjacent to the outer wall in the west. Water was lifted from this well and dropped in *kundi* and flows through the channel (*nali*) built along the wall. The channel runs parallel to the wall which was built on a raised platform and goes down the entire length of the enclosure (See Plate No. 4.5)

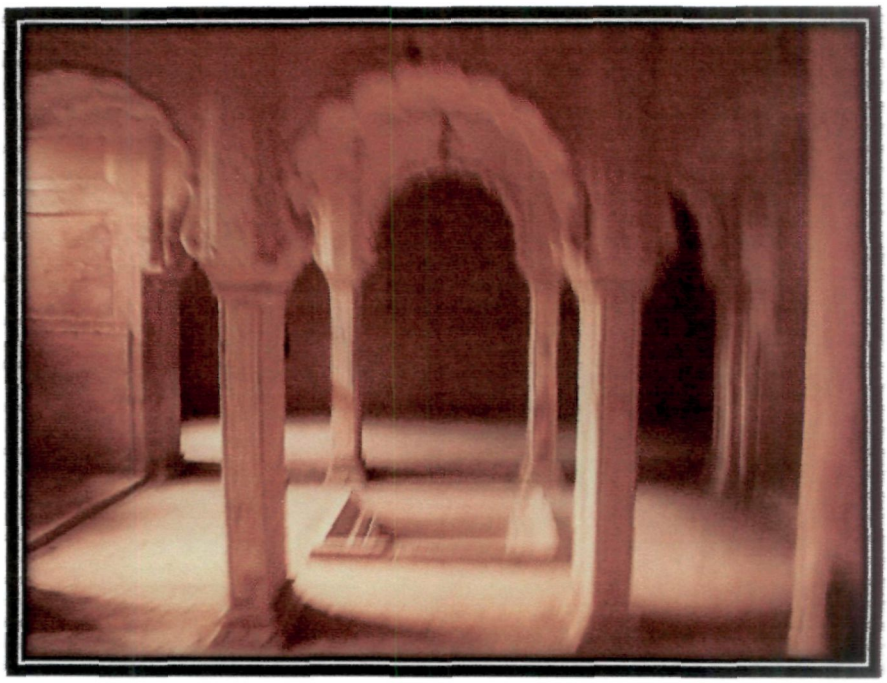
Multifoliated Fountain with Fringes (Plate No. 4.6)

A small cistern was constructed in alignment of the parting wall. In between, sub-channels made of terracotta pipes were laid under the pathways to take water to the other corner of the garden. In between the walk way numerous chambers were built on the intersections for the distribution of water in each and every section. For watering every flower-bed main pipe line was cut and water was taken into the sub-branch of *nali* through which every bed was watered. These pots were made of stone. The raised *nali* connected with the well runs along the outer wall first meets in a water storage chamber and then takes a turn and reaches the eastern part of the garden passing through the open platform of the Rai Praveen palace .

A small cistern was constructed in the garden in the west. Externally it is octagonal while the bottom of the interior in square decorated with the flower carving designs (see the pot shown in plan on the left side also see photograph for carving). In the centre of this structure there was a fountain (See Plate No. 4.6)

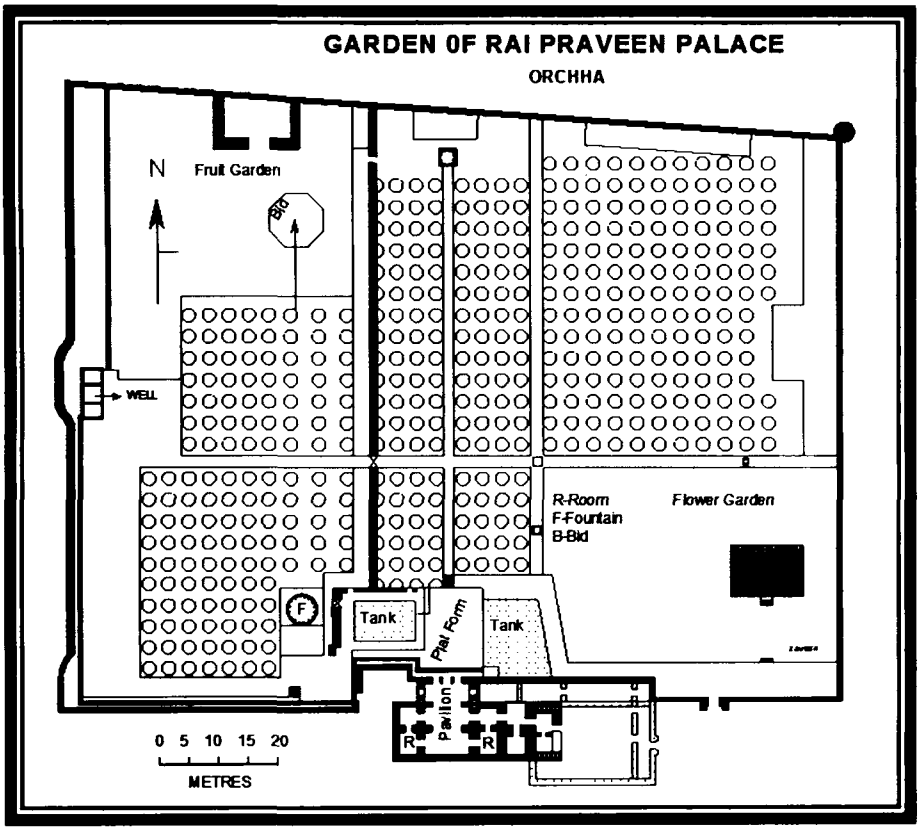
A raised platform was constructed in the eastern part of the garden. It is said that it was the site for music and other kind of programmes enacted here and known as *Indrajit-ka-Akhara*

Open Pavilion of Palace Garden (Plate No. 4.7)



Fountain in Under Ground Pavilion (Plate No. 4.8)

A *baradari* pavilion exists in a dilapidated condition. It is made of red sand-stone on a platform. In the middle of it there was a sitting place but now it has been removed. Similar fate might have occurred with its roof top (see photo of open pavilion). It was a sitting place to enjoy cool, flagrant environment and jets of water emerging from fountains. The trees were planted on both sides of the pathway.



Detailed measurement of Rai Palace Garden is given below:

S.No.	Part of Structure	Measurement in Mtr.
1	Length of Palace	128.75
2	Breath of Palace	103.90
3	Width of wall	1.00 and 0.90
4	Pathways of garden	1.70
5	Tank beside Platform	10.25X6.65
6	Size of Octagonal Beds	2.17
7	One Core of Bed	0.90
8	Diameter of Well	3.40
9	Multifoliated Fountain	5.30
10	Pavilion of Ground Floor	13.50X7.80
11	Size of Rooms	3.85X3.25,3.30X2.85
12	Each Opening of Pavilion	1.40
13	Open Pavilion of First Floor	7.80X3.75
14	Open Terrace of Roof	7.80X3.10

Phool Bagh or Hardaul Vatika:

The Phool Bagh is located on the right side of the Ram Raja temple. It is said to have been constructed by Bir Singh Dev in V.S.1668/A.D. 1611[17] to welcome the Mughal emperor Jahangir. It was probably so named because of liking of the Mughal emperor for flowers. It is believed that in the garden he installed an enormous stone cup inside the network of fountains as a wine receptacle for feting the emperor.[18]

A View of Hardaul Garden (Plate No. 4.9)

At present it is called as the *Hardaul Vatika*.[19] Hardaul was the son of Bir Singh. It is said that he was poisoned by the wife of his elder brother Maharaja Jhujhar Singh on the suspicion of illigemate relations with her.[20] Hardaul was very popular among people of the area therefore they were annoyed with the Maharaja. There is a strong possibility that his statue was installed on the platform in the center. For this reason this garden came to know as the *Hardaul Vatika*..

The Phool Bagh is divided into four rectangular parts (Plate No. 4.10). It appears that this *bagh* was planned on the *chaharbagh* pattern. The water-channels and pathways divided the area into four parts. There are four water-channels which met at the central pavilion. It seems that before installing the statue of Hardaul there was a fountain. All the four channels are made of red sand stone.

The bottom of all the four channels are *pucca* with fountains fitted in the centre. Each compartment has eleven octagonal flower beds. In between small octagonal beds with *pucca* floor were created for single fountain in their centre. This was done to enjoy the water fall while walking on the pavement.

Octagonal Beds and Water-Tank I (Plate No. 4.11)

Central Pavilion and Channels of Water (Plate No. 4.12)

There is a plateform in the centre, where now exists the image of Hardaul in an enclosure, encircled by a cistern or *hauz*. From this it can be presumed that formerly this was a sitting place for enjoying waterfall from fountains all around.

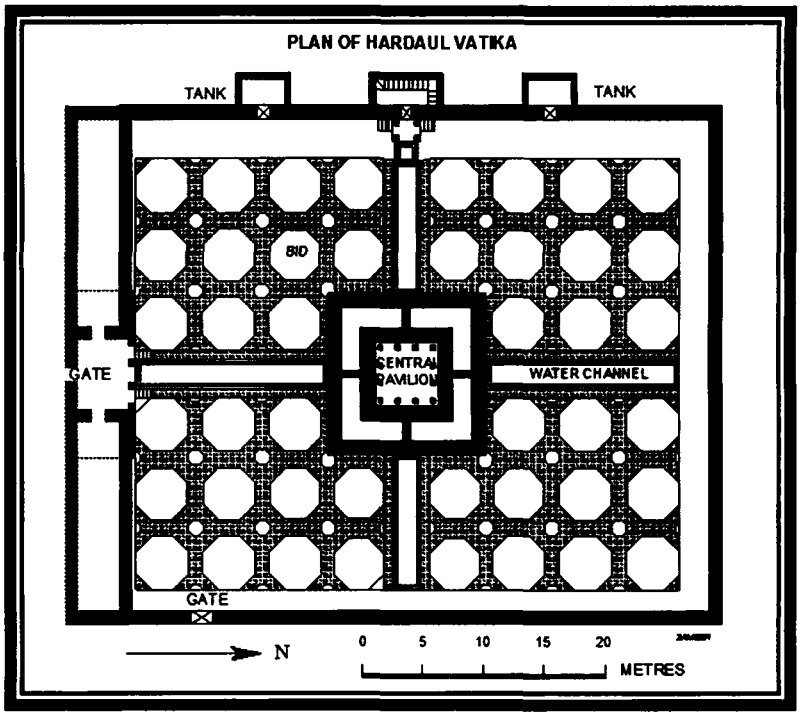
This is confirmed from the *hauz* in all four sides. This is clear from the following photo. There is a hole in all four cisterns meant for draining surplus water of all the four *hauz* into the cistern encircling the central platform (see photo of central pavilion, Plate No. 4.13).

Stone-Pillared Pavilion in Another Side Building (Plate No. 4.13)

There is a double storied building in the west of the garden which is on a raised plinth. There is an open pavilion with three arched entrances. (Plate No. 4.9) On its both sides there are two rooms. Over this there is an open terrace. There is a balcony on the second floor and four *chhatries* on the corners. Rousselet writes about this garden palace whom it calls 'Palau of Flowers'. He further writes that "the ground floor of the palace has a verandah supported by twenty-four column of red sandstone, forming a huge room. Over the verandah is a terrace, to which the first floor apartments give access; and this terrace, which was no doubt for the use of the ladies of the palace, is encompassed by a low wall. The second floor has a cage-shaped balcony, which sets off the building considerably; the flat stone roof being crowned by a small dome in the Bundela style, with a great deal moulding about it, and flanked by four small chattries"[21] This garden is enclosed by a high wall decorated with battlements. There is a roof which is reached using the steps on the western side (see photograph).

There are two tanks (*hauz*) (Plate No. 4.11) on the roof. On the edge of the inner well, there is an open *nali* or channel to bring water from the well, located outside the compound. Water brought through *nali* was stored in these two *hauz.* It is obvious that water thus stored was supplied to the fountains – through underground pipe lines and was also used for watering the flower-beds.

All the flower-beds and tanks (*hauz*) are made of red sandstone. Even the central pavilion is made of stone. Later on, when the statue of Hardaul was installed, then white marble was used in the upper part of the pavilion. Use of stone work in this garden gave it a long life and it is still intact (Plate No.4.11



Detailed Measurement of Phool Bagh:

S.No.	Part of Structures	Measurement in Mtr.
1	Total Area of Hardaul Garden	51.85 X 39.75
2	Width of wall	0.90
3	Size of Central Pavilion	5.15 X 5.15
4	Length and Breath of Water Channel	15.10 X 1.60
5	Large and Small Octagonal Beds	4.22 , 1.20
6	Each Opening of Pavilion	1.20

Garden at the Residence of Bakas Rai:

During our fieldwork we come across a garden in the *kothi* of Bakas Rai located in the back of the fort complex at Orchha and on the left side of the Rai Praveen Palace. He was holding a high position at the court of Bir Singh Dev. One side of this house-complex touches the bank of the river Betwa which enhances its beauty. There is a small garden in the back of the house divided into twenty two square flower beds.(4.14)

A View of Garden In Kothi of Bakas Rai (Plate No. 4.14)

In the central courtyard a well exists. It's water was used both for domestic purpose as well as for watering garden. The water was lifted and put in the *kundi* and drained through underground channel. Then water was first collected in the small chamber and then it was taken through *nali* to be collected in bigger *hauz* which was constructed parallel to the flower-beds. The holes at the same level in the water tank as well as the flower-beds were cut out and thus water was conveyed. It can be presumed that variety of flower plants were raised to make environment cool and fragrant.

In opposite to these flower-bids there is a sitting place to take rest and enjoy the cool environment and fragrance of flowers. This garden comes under the category of house-garden. Though it is a small garden but possesses all the qualities of a garden. Every garden big or small needs water which is the very life and soul.

Thus the need of irrigation dictated the whole plan and arrangement of Indian gardens.[22] From this point of view this is a perfect garden.

Garden in the Datia Fort:

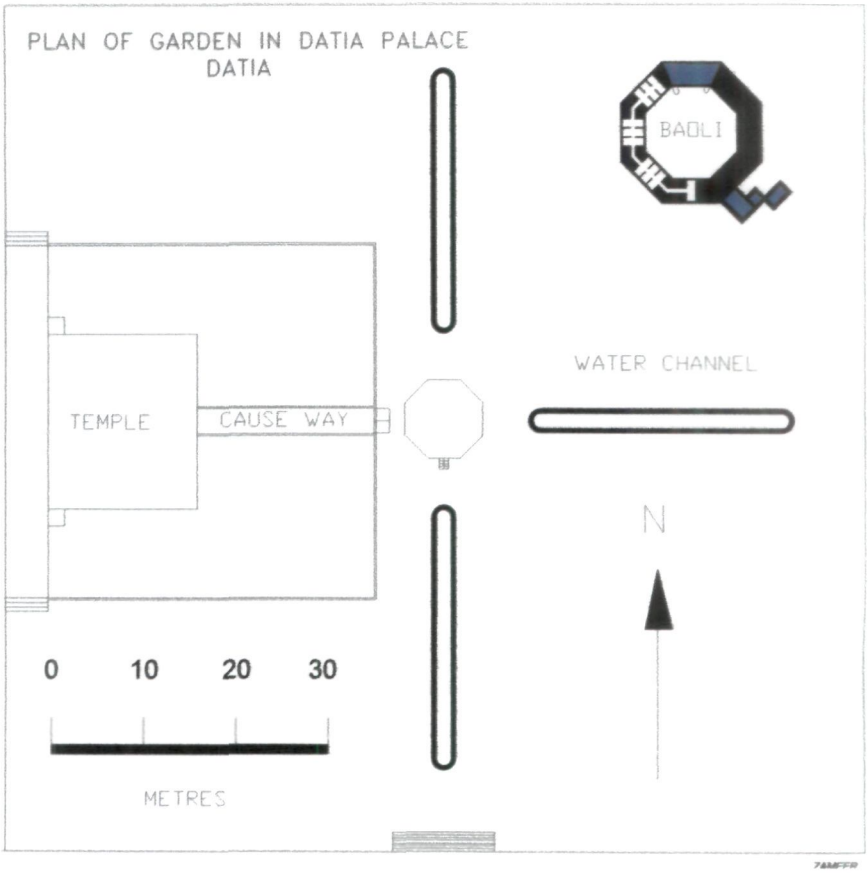
Datia was given in *jagir* to Bhagwan Rai by Bir Singh Dev. He was the son of the Bundela Chief. He took over the charge of Datia in 1626 during the life-time of his father. In fact he ruled over his *jagir* as an independent ruler since then only. He joined the Mughal service and remained loyal to the Mughal government all through his life.[23]

Water Channel In The Garden (Plate No. 4.15)

The fort-palace, where the garden exists, was constructed in the seventeenth century. The garden is located in front of the Govind Dev Temple.[24] Presumably this garden too was laid out in the same period. It occupies a large area and is rectangular in shape. It is partitioned in two equal parts by erecting arched bridge-pathway (see Plate no. 4.16) .

A stepwell is constructed on the north of the garden while on its left a rectangular *hauz* was erected for fountains (see plate no 4.15)). The channel (*nali*) was made which carried water for irrigating beds. Water was also supplied to the fountains through underground terracotta pipes. At present the right part of the garden is abandoned while the left part is still survives and producing various kind of fruits. On this basis we can say that probably in the right part flower bearing plants were raised while in the left part fruits were being raised.

Bridge Pathway in the Fort (Plate No. 4.16)



This garden possesses all the essential characteristics of a Mughal garden.

Funnery or *Chatari* Garden:

On the bank of the River Betwa, a *chhatri* complex exists which contains five cenotaphs of the Bundela rulers. All monuments are within a high enclosure wall with an arched entrance gate. The funnery monuments were erected near the enclosure wall. Three cenotaphs are on the left side of the entrance while two are on the right side. The open ground in the middle is divided into four parts by a paved cross shaped footway. This walkway intersects in the middle of the open ground where there is a small tank (See Plate No. 4.19) which has foliated edge. In the middle of the cistern there is a single fountain. It appears that originally there were avenues of trees on all the four sides of the walkways.

Main Gate of Funnery Garden (Plate No. 4.17)

Now garden is ruined completely but one may hazard that in former times varieties of flower and fruit trees were planted. Particularly fragrant and colourful flower plants were raised to produce sweet smell so that the dead could enjoy their life in other world. They could enjoy all kinds of comforts of which they were accustomed in their life time.

Two wells were excavated outside the enclosure wall: one adjacent to the left side wall while the other was on the front wall. The latter was on a high platform. The water of these two wells was taken by underground pipelines for watering flower-beds

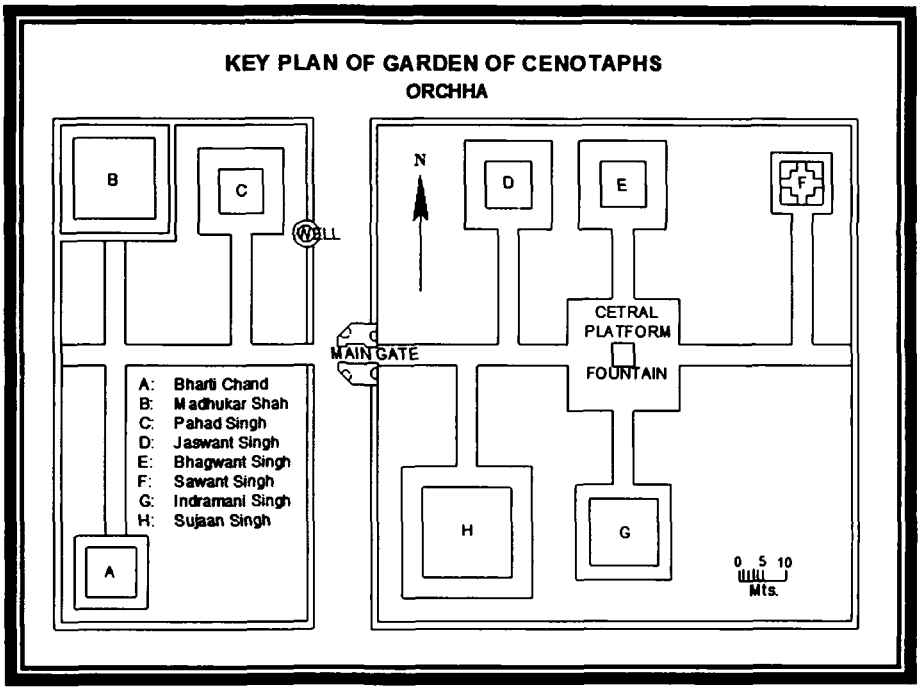
and varieties of trees. Similarly, water was taken upto the fountain. One may guess that the fountain was running only in the evening on the presumption that at this time the soul of the dead would take a stroll.

Four Side Walk-Ways in Garden (Plate No. 4.18)

Fountain in the Central Platform (Plate No 4.19)

Besides these gardens, as mentioned earlier, Keshav Das gives a detailed description of a garden in which Bir Singh Dev and his wives enjoyed cool and fragrant air. "In this garden every variety of flower and fruit bearing a tree is found. All kinds of birds are dancing, making musical noise.

Numerous fountains are fitted whose water go up and touch the sky" the poet writes. We could not find this garden but on the basis of it's description it seems to have existed somewhere in the fort-palace compound.[25]



Detailed measurement is given below of Key Plan:

S.No.	Part of the structure	Measurement in mtrs
1.	Length of compound	174.85
2	Breath of compound	107.9
3	Width of wall	1.5
4	Passages in the garden	4.50
5	Road way between two gardens	12.5
6	Diameter of Well	3.50
7	Central Platform	12.0
8	Size of Fountain	4.50

The above survey shows that though the tradition of laying-out gardens existed during the time of the Chandelas also but the Bundela rulers improved the garden-design adopting the Mughal pattern. They laid gardens on geometrical patterns. Arrangement of running water was made. Wells were dug near the gardens. Fountains were set up in the middle or every corner of the gardens with jets of water emerging from them. Rectangular or square flower-beds or parterres were made in the entire area of garden. This tradition of laying garden continued in the later centuries too but with improved garden-design on the Mughal pattern.

References:

1. Information of Rock Edict VII quoted by Irfan Habib in his article entitled "Notes on the Economic and Social Aspects of Mughal Gardens" in *Mughal Gardens – Sources, Places, Representations and Prospects,* ed. James L. Wescoat, Jr. and Joachim Walschke-Bulmahn, Washington, D.C. n.d., p.137.
2. Ahsan Jan Qaisar, *Building Construction in Mughal India,* p.33.
3. 'Khajuraho Jaina Temple Inscription of the time of Dhangadeva' Compiled in *Corpus Inscriptionum Indicarum*, ed. Harihar Vitthal Trivedi, op.cit., pp.347-49; It is easy to conclude on the predetermined notion that "much less is known of secular building or gardens's Cf. Sylvia Crow, *The Gardens of Mughal India*, Delhi, 1973, p.25. Above evidence proves otherwise.
4. Ibid.
5. Ibid.
6. 'Dubkund Stone Inscription of the Time of Vikramasimha' in *Corpus Inscriptionum Indicarum,* vol.VII, part 3, ed. H.V. Trivedi, op.cit., pp.528-35.
7. 'Narwar Stone Inscription of the Time of Ganapati Deva', ibid., pp.600-03.
8. The first priority before Babur, after settling at Agra was to layout garden there and he successfully did it by establishing 'orderly and symmatrical' garden namely, Ram Bagh, Dehra Bagh and Zahra Bagh at Sylvia Crow, op.cit., pp. 56-66; Elizabeth B. Moynihan studies in detail the Lotus garden Palace at Dholpur see "The Lotus Garden Palace of Zahiruddin Muhammad Babur" in *Muqarnus*, vol. 5, op.cit., pp. 135-1`52; Ebba Koch quotes garden of the rock-cut at Dholpur known as the *Bagh-i Nilofar* (Lotus Garden) see *Mughal Architecture – An Outline of Its History and Development (1526-1858)*, Muniah, 1991, pp.

32-33; Irfan Habib, 'Notes on the Economic and Social Aspects of Mughal Gardens', op.cit., pp.127-37; Salim Javed Akhtar, 'Mahtab Bagh: An Imperial Garden at Agra', in *Proceedings of the Indian History Congress*', Kannur, 2008, pp.1083-90; Safiya Khan, Rai Praveen Palace of Orchha: An Architectural Study- *Proceeding of M. P. History congress*, Ujjain 2011; Safiya Khan, Gardens of Bundelas at Orchha.- *Felicitation volume of Maharaja College*, Chhatarpur, 2011-12.

9. Abul Fazl, *Ain-i-Akbari,* ed. H. Blochmann, Calcutta, 1866-77, I, p.100.

10. A British official travelled to Orchha in the second half of the 19th century mentions about numerous gardens laid out by Raja Madhukar Shah see Louis Rouselet, op.cit., p. 334; K.K. Chakarvarty, *Art of India-Orchha,* op.cit., p.18.

11. K.K. Chakarvarty writes that Bir Singh Dev got the *mansab* of 7000 *sawar* which does not appear correct, op.cit., p.27.

12. Ibid., p.28.

13. Keshav Das, *Bir Singh Charit,* p.421.

14. Ibid.

15. Ibid., pp.422, 440-41.

16. *Bundeli Paintings,* pp.1-4, Directorate of Archaeology, Archives and Museums, Bhopal. Particularly see the plate of Decorated gate of Kamalapat, wife of Chhatrasal.

17. Luxman Singh Gaur, *Orchha Ka Itihas,* p.36.

18. K.K. Chakravarti, op.cit., p.27.

19. Phool Bagh and Hardaul Vatika is one and same see, Laxman Singh Gaur, op.cit., p.36.

20. Ibid., pp.39-41.

21. Rousselet, op.cit., p. 334.

22. C.M. Villiers Stuart, *Gardens of the Great Mughals*, London, 1913, pp. 10-11.

23. Bhagwan Das Gupta, *Mughalon Ke Antargat Bundelkhand Sanskritk, Samajik avam Arthik Itihas,* op.cit., pp. 12 and 21.

24. This garden is known as the garden of Bhawani Singh.

25. Keshav Das, op.cit., pp. 421-55.

CHAPTER - 5

TEMPLES

TEMPLES

The making of temples was considered a sacred deed and religious duty. Since it involved a lot of money therefore it remained confined to the rulers, nobles and the wealthy merchants. Religious consciousness finds remarkable manifestation behind the construction of the temples, *maths* and other religious monuments. Fortunately, we are getting plenty of inscriptions and literary data throwing light on temples and the names of their builders. In addition, we can obtain evidence by the archaeological field work.

The Chandelas made innumerable temples in Bundelkhand and thus put the region on the world map. In fact they made Bundelkhand as the world of temples. It is only the group of temples at Khajuraho which made them immortal. Along with them, the commercial classes came forward and took keen interest in the construction of temples. Prominent among them were those dealing in salt known as "namakvnika"[1] Innumerable inscriptions inform us about the erection of temples and installing of images in temples by the members of the Jain Community.[2] Besides these inscriptional evidences, the extant Jain temples at Khajuraho demonstrate the level of interest among the members of the Jain Community. These are *Ghantai (Adinath)*[3], Adinatha and the Arsvanatha[4]. All these temples were built during the rule of the Chandelas which indicate their liberal attitude towards other religions.

The interest of the Chandelas in the temple building was enormous. When they were supporting and promoting the people of other religious communities for the erection of their religious shrines then their interest for the construction of temples fortheir own faithcould well be imagined. It is true that large number of temples in Bundelkhand are to witness their interest in this sector. Long ago Smith rightly suggested, impressed by the architectural magnificence of the shrines, that the remains of the Chandela temples at Khajuraho are worthy of a fully illustrated volume.[5] In response to this or otherwise large number of illustrated volumes came out exclusively on Khajuraho temples and on their sculptres.[6] It is true that these scholarly works highlighted the temple architecture and refinement achieved at Khajuraho under the Chandela rule. This encourages scholars to say that "the most precious testimony of their existence which they have handed down to posterity is,

without doubt, the amazing collection of architectural works in Khajuraho."[7] No doubt Khajurao is at the apex in the temple architecture and brought laureates to the Chandelas all over the world but they did construct large number of edifices in other parts of their territorial domain. They are still to be cataloged properly. Some books have appeared at local level but there is still a great need to be tapped all these structures.

The credit goes to the British and other archaeologists who had collected very valuable data on the Chandela period. Prominent among them are Cunningham,[9] Smith,[10] K.K.Shah,[11] K.L. Agarwal[12] and others. The Archaeological Report on the Tour of Bundelkhand by Cunningham is of extreme importance which throws ample light on the building activities of the Chandelas besides temple construction.

In spite of the risk of repeatation I would briefly note a few details about the extant temple structures at Khajuraho of our interest. It is generally believed that the Chandelas maintained two capitals : religious and political. It is true politically the Chandelas, without doubt, the most powerful monarchs of Northern India particularly from the middle of the 10^{th} century to a about A.D. 1030. This was the period which witnessed the emergence of the Khajuraho. The question arises that why did the Chandelas prefer Khajuraho as their religious capital? Obvious reason appears to have been geography and topography of the region. The geographical location of Bundelkhand was to a great extent responsible for the Chandelas future. Its chief centers were Khajuraho, Kalinjar, Mahoba and Ajaygarh that lay near to the fertile and coveted region between the Ganges and the Jamuna.[13] It is located between ranges of hills protected by the Vindhya mountains in the south. Rocks and thick jungles abound. In addition to these natural factors, availability of water appears to have allured the Chandelas to select this site for their religious capital and to adorn this place with religious sancturies. It appears that there were numerous depressions in the plains in between the hills and the rain water was collected there and thus converted them into big lakes. One of them was mentioned by Ibn Batuta.[14] Though the area was bereft of any perennial river but a small seasonal river *Khudar*. These lakes would certainly have raised the water table near to the surface. Therefore, natural defences and availability of surface as well as underground water greatly influenced the Chandelas to establish their Capital there.

The temples at Khajuraho are about thirty in numbers. It is said that under the reign of Yasho Varman that these magnificent shrines are supposed to have been started.[15] But Bose on the basis of the extant inscriptions and the architectural style of the temples draws the conclusion that they were built during the period C. AD 950 to c.AD 1050. This was the most flourishing period of the Chandela rule. This period coincides with the rule of Dhanga and Vidyadhar.[16]While others say Yasho Varman erected a temple to Vishnu and the Lakhsman.[17] After his demise his son Dhanga undertook the work of temples construction. He took keen interest in the work of beautifying Khajuraho. The temples of Vishvanath and Parshvanath among others came into existence during his reign. It was during his reign the seat of government was transferred to Kalinjar.[18] Khajuraho was left to fulfill the role of religious center. But the credit to construct the temples of Kandariya, the Devi Jagdamba, the Chitragupta, the Vishvanath, the Vimana and perhaps others is ascribed to him.[19] All these temples receive appreciation from historians as well as art historians.[20]

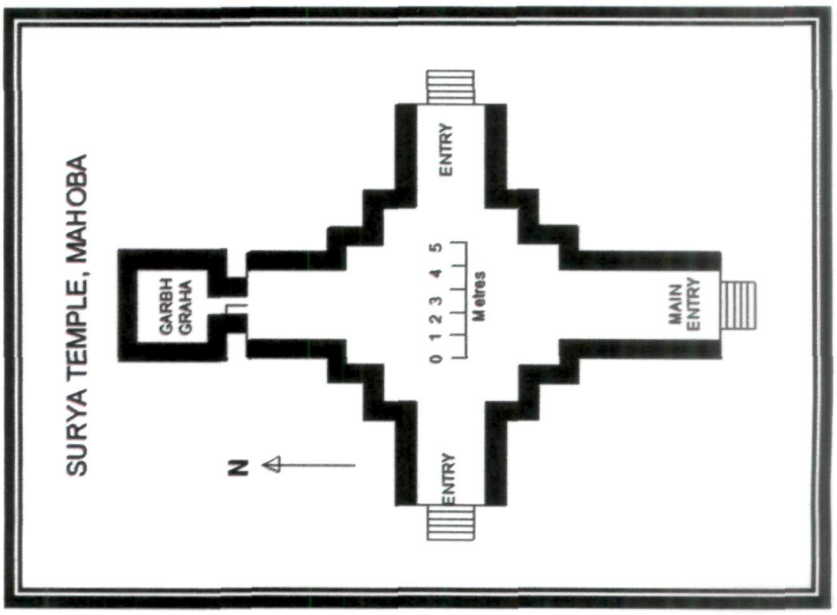
The Kandriya Mahadev temple is the most beautiful and magnificent shrine. It is the largest and most imposing of all the temples of Khajuraho. Bose give its measurement. It is 109 ft. in length, 60 ft. in breadth and 116.5 ft. in height.[21]It is divided into six parts namely, the portico, main hall, transepts, vestibule, sanctum and ambulatory. The *Sikhara* is extremely beautiful and elegant. The temple contains 872 statues 226 statues inside and 646 outside of it.[22]

Surya Temple (Mahoba):

As mentioned above the Chandelas built numerous temples at Mahoba, Ajaygarh, Damoh, Sagar, Madanpur and others. A few temples are survived in Mahoba. Prominent among them are the Surya temple and Khakhramath.[23]The Surya temple is located at the village of Rahilya at the distance of 3 km away on the Mahoba-Chhatarpur road. The Chandela ruler Rahil Dev Varman constructed a big dam and named after his name Rhilya Sagar in AD 890 and erected a temple on its bank. It was made of granite stones on the *panchaytan* style. It consists of a *garbha-graha*, an *antarala* and a *mandapa*. The sanctum and the *shikhara* are *saptaratha* in plan and elevation (See Pate No. 5.1 and Plan).

The image of the god Sun was installed in its sanctum. In all its four corners the images of the lord Shiva, Ganesh, Shakti and the Vishnu were installed.[24]

Outer View of Surya Temple (Plate No. 5.1)



Measurement of temple: Garbhgraha 3.15 X 3.15, middle portion 8.45 X 6.0, Width of wall .80, Jagti 3.75 X 2.0, Breath of Gallery 3.0 Metre. All the measurements are in metre.

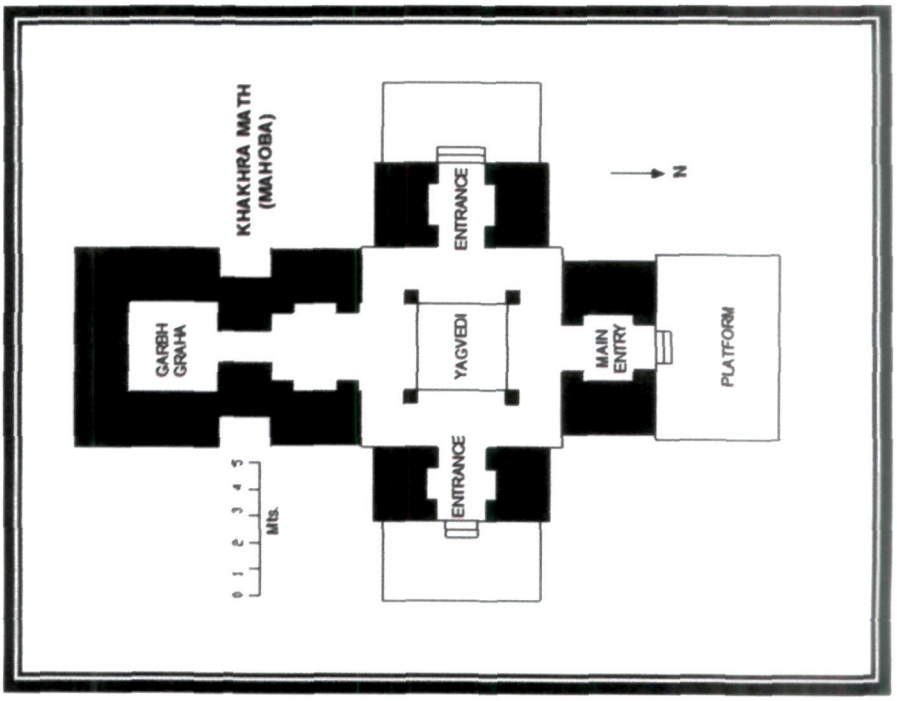
Inner View of Surya Temple (Plate No. 5.2)

Khakhramath Temple (Mahoba):

Another temple is known as the Khakhrmath or Kakramarh. This temple is located in the middle of the Madan Sagarlake (See Plate No. 5.3 5.4). Both structures-water monument and shrine were constructed by Madan Varman. Cunningham made survey of this monument in 1843 and found the remains of the lord Shiva.[25]This temple is, therefore, identified as the Shiva temple by later historians.[26]

The temple is made of granite stone and erected on the raised platform i.e., the *jagti*. It is 103 ft. in height and 42 ft. in breadth.[27] It is on the Khajuraho style. The sanctum is on the highest platform and the remaining parts (*antaral*, *mahamandap*, *ardh-mandap*) are in the descending order. It contains three entrances: main gate in the east and two in the north and the south. It is simple and no decoration on the stone slabs therefore inferior in quality to those of the temples of Khajuraho.[28] But it is said to have been largest to all the temples of Khajuraho.[29]

Khakhramath Temple (Plate No. 5.3)



We have documented this structure in the form of measurement and photographs following ground plan is prepared: Dimensions of the temple, Outer Platform 7.0 X 4.70, Main entrance Gallery 3.55 X2.55, *Garbhgraha* 3.45 X 3.45, *Yagvedi* 3.30 X 3.45, Width of wall 2.0 mtr. Total number of pillars 32, and all measurements are in metre.

Besides this, there are other remains of temples of the Chandela period which were constructed on the islands of the Madan Sagar.[30] There is an island known as the *Majhari* on which a temple of the Vishnu existed identified by Cunningham. This structure was raised on the *jagati* (platform) measuring 107x75 square feet. In addition to these Shaiv and the Vaishnav temples, there are numerous Jain shrines dedicated to Rishabhnath, Neminath, Parshavnath, Mahavir and others which are said to have been erected during the 12th century.[31]

Inner Side View of Khakhramath Temple (Plate No. 5.4)

We came across a temple at village Salat 4 km away from the Mahoba-Rath road. This shrine is identified as either the Shiva or Jain temple. This temple is similar to that of Sun temple of Rahilya. (See Plate No. 5.1)It appears to have been raised in the 12th century which is confirmed from an inscription on a stone slab.[32]Besides these temples at the capital city Mahoba, we have surveyed some Chandela sites in its vicinity which contain very beautiful and unique temples. Some of them have been documented.

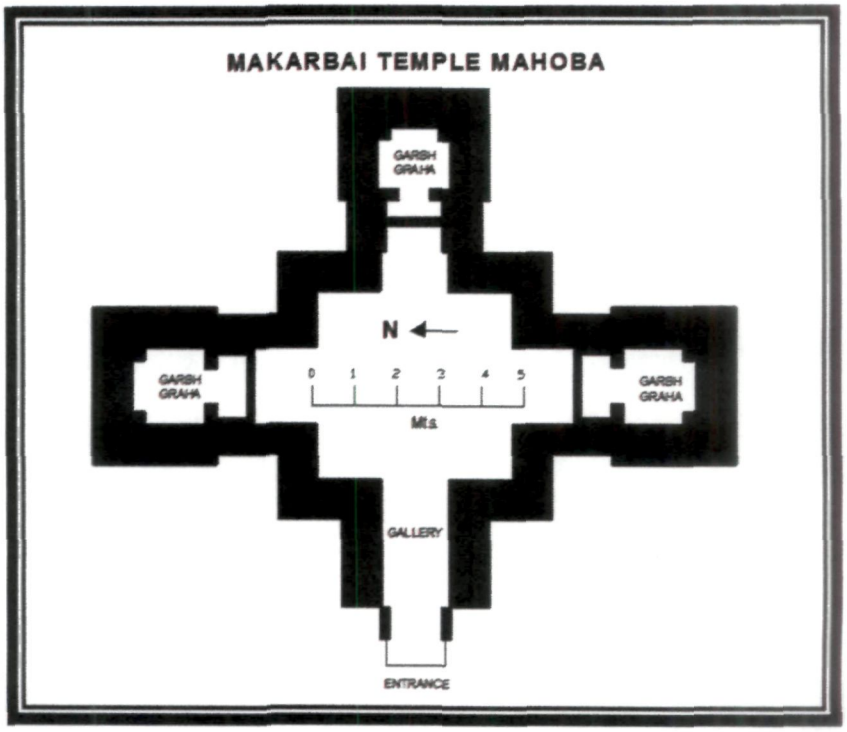
Makarbai Temple:

The temple is named after the village Makarbai which is located on the Mahoba-Hamirpur road.[33] This shrine is said to have been erected by the Chandelas in the 12th century. Cunningham visited this site in 1871-72 and noticed this temple and wrote that "there is a small, but very beautiful temple of unique type.[34]Then Dayaram Sahni and Vasudev Chaurasiya surveyed this site. Then I made an extensive survey of it and documented in the form of photographs and took measurements and made ground plan of the temple while Cunningham could not photographed in his first visit.(See Plate No. 5.5)

Outer View of Makarbai Temple (Plate No. 5.5)

This is really a unique temple made of granite as said by Cunningham. It has one entrance with long gallery but three sanctums. In the middle there is a *mandap* with open roof. Even sides are opened in all directions. The roof on the sanctum contains *Shikhara*. On the lintel of the door the statues of gods and goddesses are engraved. Stone slabs of the inner part of the *mandap* are engraved with beautiful patterns. The entrance is in the west and the *garbhgrahas* are in the north, south and the east. The shape of the *mandap* resembles with *swastik* Symbol. The base of the *mandap* is octagonal while upper part is circular. The size of it went on reducing as it goes up. The ground plan is prepared on the basis of my field survey.

Garbhgraha of the Temple (Plate No. 5.6)



We have documented this temple in the form of measurement and photos: Entrance 1.20, Middle portion 4.40 X 4.45, Front *Garbhgraha* 1.70 X 1.85, Both side *Garbhgraha* are same 2.0 X 1.75, Pillars .30 X .30, .40 X .30 and .50 X .30, Width of wall .95 mtr. All the measurements are in metres.

All the *garbhgrahas* are dedicated to different deities. (See Plate No. 5.6) There is a controversy about the identification of temple. Cunningham conjectures that the central sanctum contains the statue of Buddha while other is clearly dedicated to Shiva. The statue in the third could be ascertained by him because the figure is mutilated while Rai Bahadur Dayaram Sahni refutes his claim and calls it Jain Tirthankar.[36] Chaurasiya ascribes the third sanctum to goddess by locating Brahma, Vishnu and Mahesh on the lintel of the door.[37]

Ratneshwar Temple:

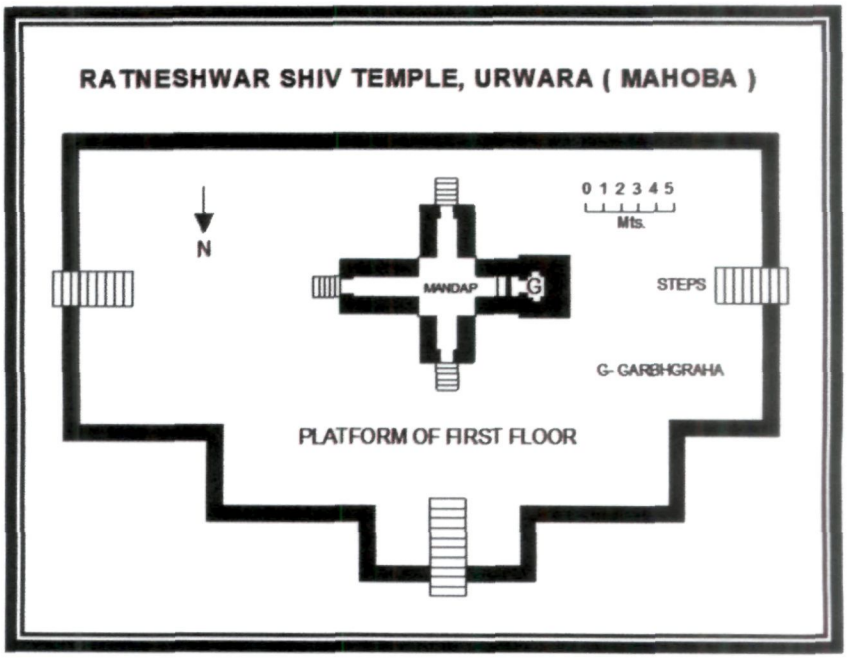
The temple is located in village Urwara in the district Mahoba on the Kanpur Sagar Road. This shrine is said to have been constructed by the Chandela rulers in the 12th century. Its location on the bank of the Ratan Sagar makes it extremely picturesque. Therefore, the temple dedicated to Lord Shiva is popularly known as the Ratneshwar Shiva Mandir (Plate No. 5.7)

Ratneshwar Temple on the Bank of Ratan Sagar (Plate no. 5.7)

This double storyed abode of the Lord Shiva is made of granite stone made on high and spacious platform. Stairs are provided to climb up the *Jagti*. There are four entrance gates on the beautifully engraved pillars which are opened in three directions. The gallery on the ground floor has seven turns and rests on a pair of

engraved pillars with facility of sitting on the slabs. At the end of it there are two *garbhgrahas*. The middle part contains octagonal decorated *mandap*.

Niches on the in Gallery (Plate No. 5.8)



The temple is on the second storey on the roof erected on the gallery. The approach on this floor is through the stairs provided in three sides. The shrine is decorated with the statues of gods and goddesses put up in the *tak* (niche).

These are total 34 *taks* (niches) of 22 on the ground floor while 12 are on the upper floor. The *Shivlingas* are engraved on the floor (See Plate No 5.8). On both sides of the temple there are *ghats* with many turns which enhance its beauty, we have taken measurement and made following ground plan. The shape of the temple resembles with the *swastik* symbol. I have surveyed this structure and made a following ground plan: Seven turns in gallery of ground floor, Width of wall 0.85, Entrance 1.20, Middle part of temple 3.22 X 3.28, *Garbhgraha* 1.70 X 1.0, Three sides entrance Gallery 2.90 X 1.20, 4.40 X 1.70 and 2.60 X 1.20, Total steps are 5, Total Area of Inner side of temple is 8.50 X 11.0 metre.

Sijahari Temple:

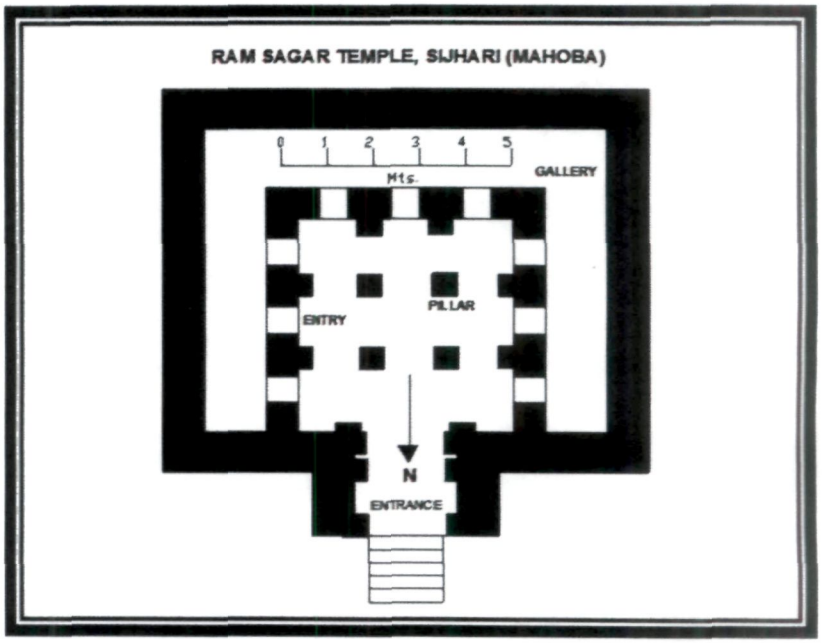
The village is located 11 km from Mahoba on the Kanpur Sagar Road. It is said that the nephews named Siya and Hari of Aalha and Udal (renowned warrior of Mahoba) used to live here therefore the place named after them as Siyahari. Gradually, the name was corrupted and came to be known as Sijhari.[39]

Sijhari Temple on the Bank of Ram Sagar (Plate No. 5.9)

The temple is located on the bank of the Ram Sagar lake and built of granite slabs. (Plate No. 5.9) Though no statue is found in the shrine but identified by scholars as the Jain temple.[40] It is believed that it was constructed in the 11th century during the time of the Chandelas.

The temple is raised on the high *Jagti* (platform) faces the lake. The entrance is in the north and five steps are provided to approach the temple. Steps are covered by *verandah* opened from two sides for light. It contains two rectangular sanctuaries.

Garbhgrahas and Pillars of Temple (Plate No. 5.10)



There is a combined one *mandap* and one *torandwar* of both the *garbhgrahas* (Plate No.5.10) There are niches in the temple meant for the *tirthankars*.

The Shrine faces the lake and long stairs are provided to reach upto water level. This makes it picturesque and enhances the beauty of the shrine. Total area of Temple 21 X 18, Middle Part 5.0 X 5.30, Three sides gallery around Garbhgraha 8.75 X 1.35, both sides are same 6.90 X 1.35 metre. All measurements are in metre.

Temple of Ajayarh fort:

Ajayagarh was the center of the Chandelas. A number of temples of different styles are extant in the fort which were built by the rulers of various dynasties. Some of them are in ruins but others are in good shape. Three temples are located near the Parmal tank in the southern end of the fort. These are said to have been constructed by the Chandela rulers. Of these, one is in ruined but other two are standing in a row which are called *Chandeli Mahal.*[41] According to Cunningham, the largest among these three temples is 60 ft. in length and 40 ft. in breadth. The walls of this temple is richly carved in the Chandela style. Craftsmen have carved the petals of lotus on the pillars, arches and the *shikharas* of the temples. Panels are decorated with the figures of *apsaras* and symphs.[42] Cunningham gives measurement of third temple in the row which is 54 by 36 ft. While the size of the second temple corresponds with that of the first.[43] Cluster of these three temples are the best examples of the Chandela architecture.

At Tarhaoni gate, there is a panel of rock-out images of eight goddesses whom Cunningham calls the *Ashta Sakti.* Of seven images are sitting while one is standing.[44] These are called as *sapta-matrikas* or seven mother goddesses and the eighth is *Veer Bhadra* a form of Shiva by two modern scholars.[45] Cunningham gives their measurement too. Each is 3ft. high and 3ft. 10 inches broad. Though they are not fine in architectural style but geometrical symmetry was maintained by the artists.[46] Names of the goddesses are engraved below them. Cunningham could read four names namely *Sri Chandi*, *Sri Chamunda*, *Sri Kalika* and *Jayapura-durga.*[47]

Adjacent to it there are some small Jain figures. In the side of it there are figures of cow and calf, a human palm and a child in the lap of a goddess. On the right of it there are five pigs above one another and eight pigs in pairs above one another on her left side. All these symbols are of fecundity or fertility.[47]

Nearby, there is a panel of *sati* pillars. These memorials are of those women who had sacrificed their life by jumping into the fire in memory of their husbands who had lost their life while fighting in battle. This implies that the occupants of the citadel took part in the battle and lost their lives. The *Kalinjar Darwaza* is decorated with a sculpture of a dancing Ganesha which enhances the beauty of the entrance.

These religious building are beautifully engraved and decorated with many religious motives and symbols. This shows the interest of the rulers of different dynasties in the construction of religious buildings in a particular style and decoration with sculptures.

Nilkantha Temple:

Kalinjar had served as the capital of the Chandelas during the time of Dhanga. This historical fort contains numerous abodes of god and goddess. Prominent among them are the *Nilkantha* temple of Lord Shiva (Plate No. 5.11).

A View of Nilkanth Temple (Plate No. 5.11)

An Octagonal cave in shape with a Chandela *mandap* in front, the temple houses twin river-goddesses and the pair of *Har-Gauri*. The pillars are quite high standing on a lofty platform. There are eight pillars on which an octagonal stone-frame was raised to give a round shape to the roof as well as bottom surface.

On the right side two additional pillars were raised to make a passage. In front of this octagonal open pavilion a *toran* entrance was made. All the pillars are possessing beautiful carvings. In the middle of the chamber there is a *yagyakund* which was for performing rituals. It appears that formerly the roof was covered with stone slabs but it had fallen which is evident from the littered stones around. Besides this, stairs are provided on both sides to go upstairs to approach roof. This is a very majestic *mandap* built during the time of Kirtivarman.[49]

In addition, there are numerous rock-cut images of Shiva, Parvati, Ganesh and Nandi near the Hanuman-kund. A colossal *Kalabhairava*, *Sesasayi Vishnu* and *Varaha* near lake Gangasagar. Probably there are more than a thousand icons on the walls of the fort which enhance its beauty.[50]

Temples of Village Dauni:

Chandela Temple Near Doni Sagar (Plate No. 5.12)

We had chance to discover a new Chandela site at a village known as Dauni located on the Mahoba-Chhatarpur road. It is a very small village. There is a temple complex containing three temples made of granite stone. All these temples are located on the bank of a lake. In addition to these shrines, there is an open pavilion known as the *Aalha Baithak* (See Plate No. 5.13).

The temples are on lofty *jagati*. Consisting of a sanctum and *shikhar* on it, the temples (plate No. 5.14) appear to have been dedicated to Shiva and other associated pantheons.[51]

Alha Baithak on the Bank of Sagar (Plate No. 5.13)

Another Chandela Temple (Plate No. 5.14)

Temples of Chandpur:

There is a place known as Chandpur in the district Lalitpur. It is situated in latitude $24^0$30'N and longitude $78^0$18'E. This was the religious center of Chandelas. We find a temple of *Sahastra lingeshwar* locally called *Hajaria mahadev*. It

appears that this temple was on the *panchaytan* style since two small shrines still survive in the corners of its courtyard. The main temple contains a *linga* carved with figures of Vishnu, Surya, Ganesh and Gauri. The temple is in dilapidated condition except the sanctum and the *mandap*. There is a plain *mandap* and figure of *Nandi* in front of the temple.

Another temple of the *Sahastra lingeshwar* is located near the embankment of a lake.On its other corner there are remains of the Varah temple where we find only the figure of a boar. On its pedestal an inscription is engraved which is dated in VS 1205(AD 1148). This means that the temple was built during the time of the Chandela ruler Madanvarman.[52]

There are remains of other group of temples locally known as *Badi Belmari*. They all belonged to the Vaisnava group of temples. Only sanctum and *mandaps* have survived. But here we find the statues of Narsimha, Vaman and Hiranyakashyap. Besides, there are numerous Jain temples.

Large group of temples at Chandpur encourages us to put this temple town parallel to that of Khajuraho. Though these temples are inferior in plan, elevation and ornamentation.

Temples at Dudhai:

Another center is Dudhahi which is said to have been developed by the Chandelas. It is located in latitude $24^{0}25'$N and $78^{0}24'$E. The place is 6 km away from the Dhaurra railway station of Central Railway.

A group of temples is located to the east of the present village. Here we find six temples: two Shiva temples, one Varaha temple, two Jain temples and a Brahma temple. Of these, only the sanctum of two Shiva temples is standing in original form. Cunningham notices two more Varaha images.[53] Here we come across a Brahma temple only in Bundelkhand. The porch, the *mandap* and the *garbhagraha* have survived.

There are numerous inscriptions related to the Brahma temple.[54]These inscriptions are put up by Devalabdhi son of Krishna and Asarava and grandson of the Chandela king Yasho Varman. He claims to have erected the

Another group of temples is located about 1km to the west of the group. These temples are in the middle of a dense forest. This group of temples is known locally as *Baniye-ki-Barat* or Baniya's marriage party. It is believed that Jain Baniya Depat-Khept had spent money for the erection of these temples.

There is one temple dedicated to Hanuman, which is quite big in size. The remains around this temple indicate its size. Though the statue is headless but demonstrates its magnificence.[55] Besides this, Cunningham notices a temple of Vishnu and Varaha image.[56]

There is a largest temple which is unique in plan. In form it is a cross with two long limbs and two short limbs meeting in the middle. The central part contains two rooms with a doorway between them. Major part of the shrine has fallen but Cunningham praises its architectural design and structural symmetry and beauty.[57]

Temples of Deogarh:

Deogarh in the district of Lalitpur is known as the pilgrimage center of Jains. There are numerous temples dedicated to various *Jain Tirthankars*. An inscription found in the hill situated at *Rajaghati* or *kalighati* mentions the name of king Kirti Varman. On the basis of it we can presume that the Chandela rule might have taken interest in the construction of temples there. But involvement of a Chandela minister is proved by an inscription. He claims to have erected the fort as well as a flight of steps.[58]

Large number of inscriptions furnish us information about the construction of temples by the Chandela rulers, their ministers and their teachers. A Mau inscription reports that the temple was built by the Minister of Madan Varman at Dedduin the vicinity of Mau.[59]

Information collected above shows the tradition of the temple construction was quite strong during the time of the Chandelas. Especially Dhang, Karti Varaman and Madan Varman took keen interest in the construction of shrines. During our fieldwork we noticed large number of temples at many places but it is difficult to date them because of absence of any inscription. But on the basis of their architectural style they could be ascribed to the Chandela period.

Contribution of the Bundelas in the temple construction:

Emergence of the Bundelas on the political platform played a significant role not only in political field but also in the construction sector. Their political power was even recognized by the mughal emperor. The shifting of capital from Garhkundar to Orchha in 1531 brought changes in their fortunes. The new capital city was founded by Rudrapratap. He was the first ruler who started construction of a palace there but his sudden demise left it incomplete. Then his son Bharti Chand completed the Orchha palace in 1539.

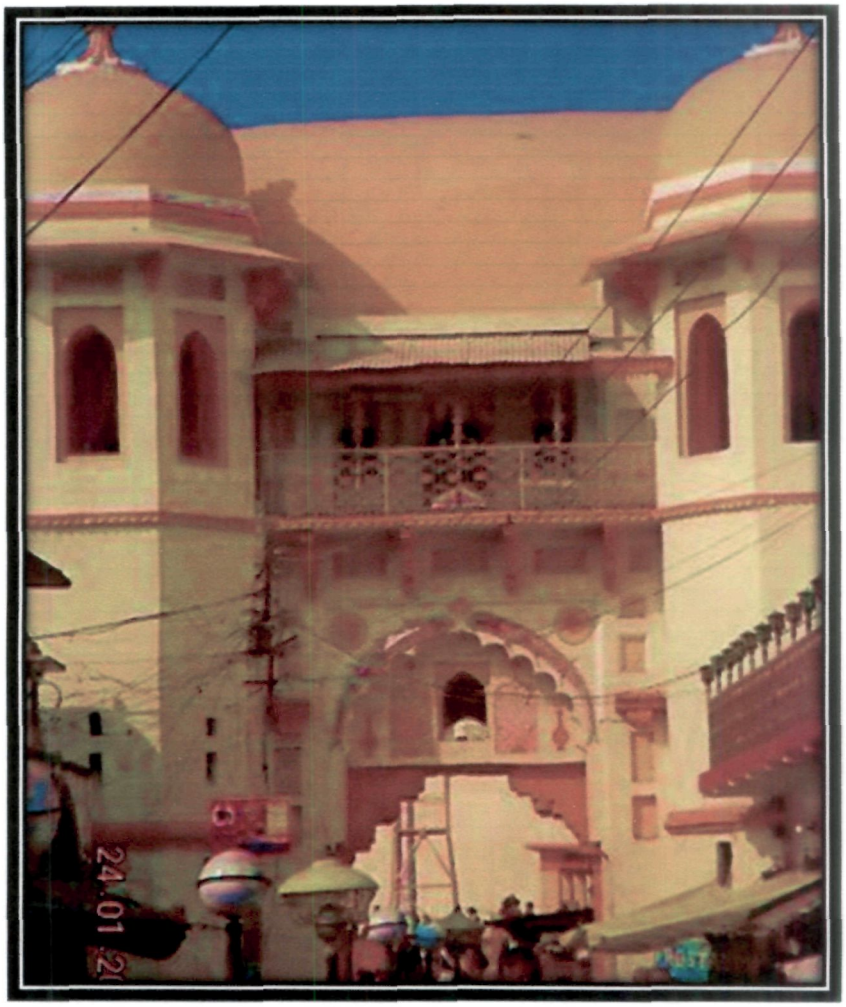
The activities of temple construction were initiated by madhukar Shah (1554-92). He was the first Bundela chief who erected first temple at Orchha known as the Chaturbhuj temple. This shrine constructed to house Lord Rama since it could not be completed by the time the statue of Rama was brought by the Rani Ganesh Kunwar therefore, it was installed in the *Rani-mahal*. Thus this became the permanent seat of the lord and this palace came to be known as the Ram Raja temple.

Ram RajaTemple:

Ram Raja Temple at Orchha (Plate No. 5.15)

Since present Ram Raja temple houses in the palace built by Raja Madhukar Shah for the Rani Ganesh Kunwar therefore, it possesses all the qualities of a palace meant for a royal lady. It is rectangular in plan.

The palace is encircled by a high and fortified wall, which contains two entrances. In front of two gates there is a screen wall. Inside there is a rectangular courtyard. Around it, there are apartments in three receding tiers. There are parabolic arches at the entrance of the sanctum and with palanquin arches on the domed front on the top.[60] To maintain privacy a fortified wall combined with, sun-drenched courtyard and balconied corridor are erected.[61]

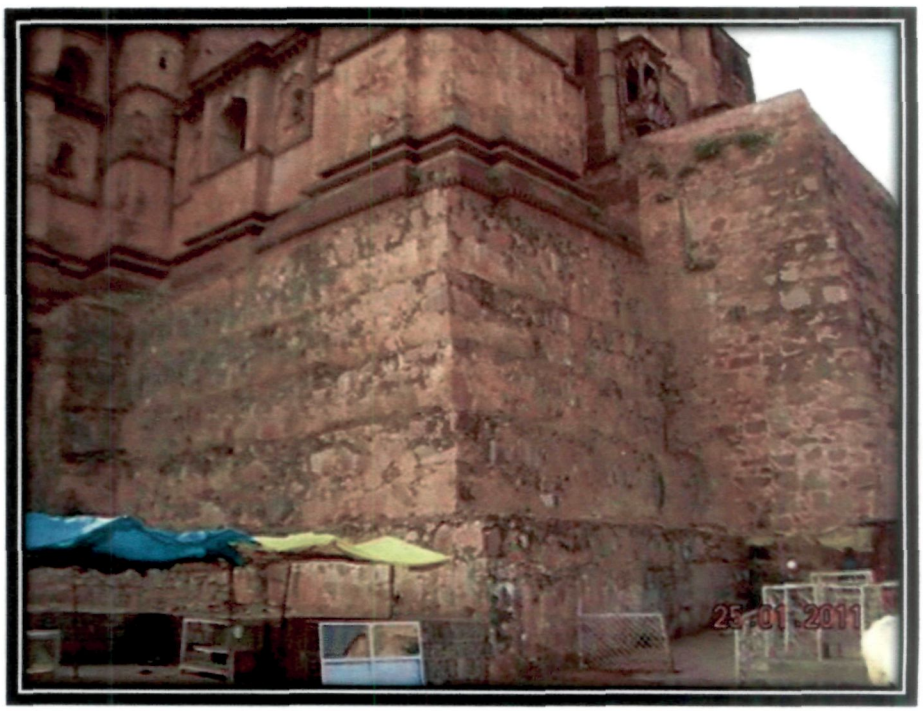


Fish Gate of Ram Raja Temple (Plate No. 5.16)

There is a massive arched gate through which devotees approach to the main temple. There is an open space between the outer gate and the palace-temple. A well was excavated in between both the structures, which is still in operation. This temple has assumed the status of a pilgrimage center particularly for the people of Bundelkhand. This shrine is decorated in Bundeli style.

Chatarbhuj Temple:

The temple is erected on a high stone platform (Plate No. 5.17) in the south-west of the Ram Raja temple. The shrine is three storied but the height of ground floor is quite high which comes about 8 meters. It is rectangular in plan. There is a flight of steps to reach on the ground floor. At this point there are two projected balconies outside the gate. An arched entrance gate is quite lofty and majestic with *baithak* on each side of it. Then there are three courtyards in successive series. First is opened flanked by opened *barandah* while the second is closed hall and partitioned into two parts. Similarly, last hall is again in two parts which are flanked by two arched *baithaks* (seating place). Both sides contain openings : one opened towards the Ram Raja temple while second is towards a closed courtyard.[62]



High Stone-Platform of Chaturbhuj Temple (Plate No. 5.17)

In the end of the last hall there is the sanctum sanctorium *(garbhgraha)* which houses the images. There is a tallest *shikhara* on it. The *shikharas* are in descending order. Next to the *garbhgraha* the main *sabhamandap* (Plate No. 5.20) has smaller *shikhara*. This *mandap* also possesses an arched dome. The base of it is octagonal and supported by squinches on three sides of this dome,

There are half segments of the dome circle formed by three portions of a lotus (See plate No.5.18) This is the first portion of the *sabhamandapa* (Plate No. 5.20). The second *mandapa* also posses a lotus in full bloom. The *jagati* is low with petalled stone moulding (See plate No 5.18).

Petalled Stone-Moulding (Plate No.5.18)

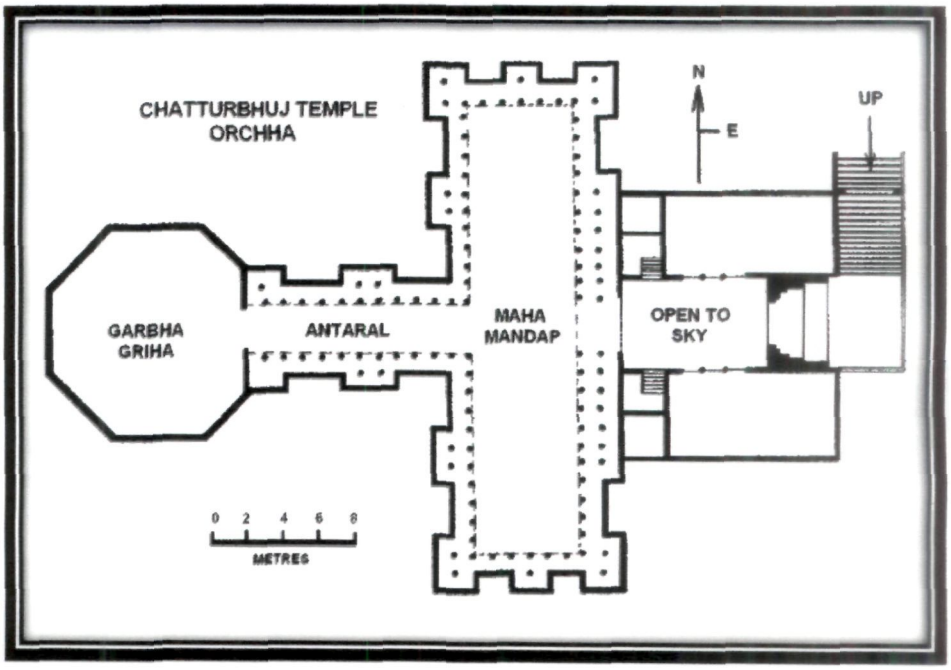
Stone-Rings Around the Shikhar (Plate No.5.19)

The central portion of the temple has gone up in four stories with three arched openings in each storey except the third which possesses false arched niches. The facade of the temple is quite similar to the Bundela palace (Figure 34). It is topped by a *Shikhara*, different from the *Shikhara* on the main temple.

Inner View of Temple (Plate No. 5.20)

The outer part looks like a large, multi-floor palace with a huge entrance, towers and buttresses. It is by a long, slender, almost pinnacle-like *shikhara* and by a central dome with *chhatris* or kiosks.The *amalaka* is the uniqueness of the *shikhara*. There a series of *ghatas* string together by an encircling stone thread. On the top of the *shikhara* there is a circular disc (Figure 26). Overall this cross-shaped temple contains the qualities of a large palace. It is the tallest building in Orchha and marvelous in architectural style and craftsmanship.

Looks Like A Large Palace of Temple (Plate No. 5.21)



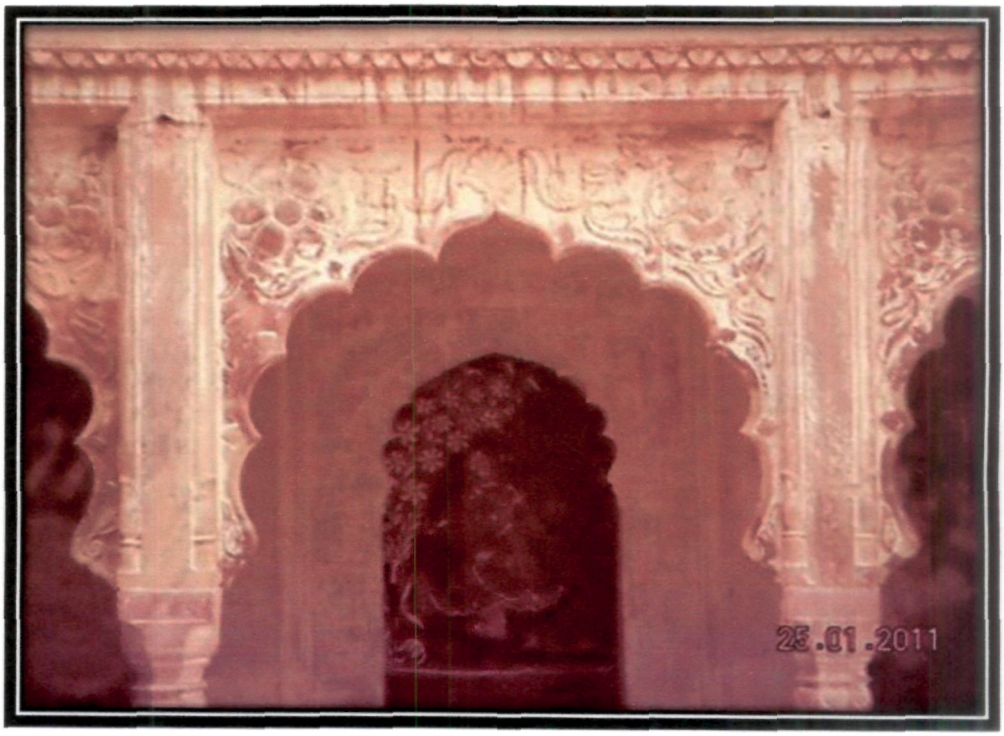
Laxmi Temple:

This magnificent and marvelous temple is located on the bank of a lake which is situated in its front. It is built on an elevation. In fact it is a ridge on which this shrine of goddess of wealth is raised. This building was erected by Bir Singh Dev in v.s.1679/AD. 1622. It is rectangular in plan. It is decorated with four multifoliated projecting bastions at four corners and one identical projections on the front gate. There was a golden Laxami statue in the *garbhagraha.*

A Panoramic View of Luxmi Temple (Plate No.5.21)

The entrance is in the projected form. This projection contains semi-circular arch topped by false multifoliated decoration. The wall-façade is broken into multifoliated arched niches. Four niches with lotus type arched umbrellas overhanging outside. Outer wall is decorated with pierced with cannon holes (*kanguras*). In other words it looks like a fort. This type of design was meant for firing cannon balls on the enemy. Besides, there are screened windows for air and light. On the upper part, the structure is made of bricks and masonry walls which contains *jalis* windows. Above it, all the domes and palanquin arches are connected by series of rampart and hollow-cross *vedi* symbols. This design was near to the hearts of the Bundelas (Plate No. 5.21).

Ornamented Veranda of Luxmi Temple (Plate No. 5.22)



Multifoliated Arched Veranda and Wall Painting (Plate No. 5.23)

The double-storeyed bastions are in all the four sides which are mounted by an octagonal dome. All the corners are decorated with niches with sharp conical stones resemble like curled lotus petals. The design of the *shikhara* is unique. It possesses two additional components in the circular wheel of Vishnu and birds facing outwards.

Brackets Decoreted with Paintings (Plate No. 5.24)

The gateway is topped by two lions facing each other considered an auspicious symbol by the Bundelas. The front entrance is rectangular stone frame while the gallery has five arcades with wagon vault roof. The ceiling is marvelously decorated with paintings mostly depicting the life of Krishna and other secular scenes. The middle part of the temple structure in fact secondary part. The frontal gate takes us straight to this portion. The shrine is octagonal with octagonal pillar shafts which go up to the *shikhara*. In between these pillars there are niches mounted by the *shikhara* of the temple. The third and the fourth part contain ariel windows in the niches. The open space between the *chhajja* and the brackets is decorated with paintings similar to inner part of the shrine. The middle part of the temple is open to the sky.

The ground floor of this portion contains an open space (*aangan*) and side arched entrances. In other part there are enclosed long and short *varandas* containing decorated niches and rectangular spaces. The multifoliated arch openings of the verandas are engraved with flowers. Upper part of the shrine contains *varandas* and windows opened towards open fields.

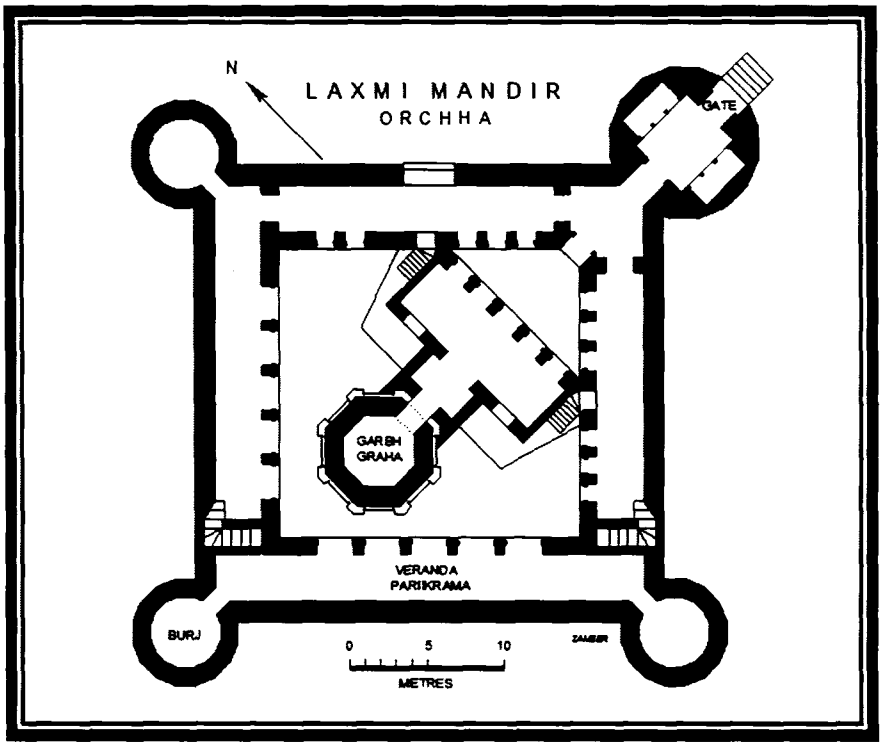
It appears that the architects wanted to decorate every part and section of the temple with numerous flower designs on the pillars, walls, entrances, windows and the ceilings with paintings and geometrical patterns. Since the deity of the shrine the Laxami is the symbol of wealth, therefore her abode should also be rich in all respect.

Ornamented Roof of Temple (Plate No.5.26)

The *garbhgraha* lies in the centre just infront of the main entrance which does not fronted by a assembly hall. The beauty of this temple lies in its triangular from all sides like pigeon shape. (See Plate No. 5.21)

Foregoing study shows that the region of Bundelkhand was enriched by the Chandelas and the Bundelas by erecting large number of religious shrines. The tradition established by the farmer was undoubtedly followed by the latter but they would not surpass them in numbers as well as in the architectural beauty and techniques both.

Some of the temples are of such artistic perfection that they fall into the category of masterpieces of Indian art. On the contrary, the Bundelas could not even compete with them.



We have take photographs and measurements of this temple, are given below: Total area of Luxmi temple 27.70 X 26.70, Width of outer wall 1.30, Length and Breath of around veranda 21.50 X 3.0, Measurment of octagan garbhgraha 3.24 and three sides burj type minarets are 4.52 in diameter. All measurements are in metre unit.

Our purpose here is not to present a comparative study of the temple architecture of both the periods but to put forward a description of major temples erected between A.D. 1000 and AD. 1700.

References

1. K.K. Shah, *Ancient Bundelkhand*, Delhi, 1988, p.135. He quotes inscription from the book of R.B. pande, *Historical and Literary Inscriptions*, p.167.

2. "Darbat Santinath Image Inscription of the Time of Kirtivarman" in *Corpus Inscriptionum Indicarum*, Vol.VII, part 3, op.cit., pp.365-66.

3. Cunningham, op.cit.,Vol.X, pp.16-18; Formerly he had identified this temple, as the Budhist but later on accompanied with Ferguson then changed his views. See also, V. Smith, *JASB*, Vol. XLVIII, part I, 1879, p. 285.

4. "Khajuraho Jain Temple Inscription of Time of Dhangadeva" V.S. 1011, in *Corpus*, op.cit., Vol.VII, part 3, pp.347-49. This inscription was found by Cunningham in 1862-1865.

5. As quoted by N.S. Bose, op.cit., p.162.

6. Eliky Zannas and Jeannine Aaboyes, *Khajuraha*, The Hague, 1960; R. Nath, *The Art of khajuraho*, New Delhi, 1980.

7. Eliky Zannas and Jeannine Auboyer, *Khajuraho*, op.cit., p.45.

8. Vasudev Chaurasia's work on the remains of the Chandela period in Mahoba and the district of Hamirpur is exhaustive and of extreme importance. It appears that his work is primarily based on the fieldwork of all kind of remains of the Chndela period see, *Chandel Kaleen Mahoba Aur Janpad Hamirpur Ke Purawashesh*, Mahoba, 1994: Safiya Khan, Temples of Mahoba During the Period of Chandelas, *Raso*, 2012.

9. Cunningham's Survey reports on Bundelkhand.

10. Smith's articles on Khajuraho.

11. K.K. Shah gives an exhaustive list of the archaeological remains pertaining to all the districts come under the Bundelkhand region see, *Ancient Bundelkhand*, op.cit., pp.50-82.

12. K.L. Agarwal also furnishes the district-wise list of the remins of the monuments belonging to the Chandela and the Bundela period see,*Vindhya kshetra Ka Aitahasik Bhugol*, Satna, 1987, pp.128-68.

13. Eliky Zannas and Jeannine Auboyer, *Khajuraho*, op.cit., p.32.

14. Ibn Batuta passed through Khajuraho in AD 1342 who noted "From the City of Parwan we betook ourselves to the anwari *Manzil* and then to that of kajarra (kajrao or Khajuraho) where there is a great pond about a mile in length near which are temples containing idols which the Muslims have mutilated. In the center of that pond, there are three cupolas of red stone, each of three stories; and at the four corners of the pond are cupolas in which live a body of the Jogis...." ef. *The Rehla of ibn Batuta* (tr. Mahdi Husain, Baroda, 1953, p.166.) Probably the pond mentioned by IbnBatuta was the Silasagar Lake.

15. Eliky Zannas and Jeannine Auboyer, Khajuraho, op.cit., p.34.

16. N.S. Bose writes that "the political success of these two kings naturally increased the wealth of the kingdom, and this was spent by the kings for the construction of the magnificent temples in their religious capital." Cg.,op.cit., p.162.

17. cf. Eliky Zannas and Jeannine Auboyer, Khajuraho, op.cit., p.34.

18. Ibid.

19. Ibid., p.35.

20. N.S. Bose, op. cit., pp.164-68; K.K. Shah, op. cit., pp.138-39.

21. N.S. Bose, op. cit., p.166.

22. Cunningham, Archaeological Survey Report, II, pp.419-21 , quoted by N.S. Bose, op.cit., p.166.

23. N.S. Bose, op.cit., pp.167-68

24. A.S.R.,II, p.441. Vasudev Chaurasiya, op.cit., pp.49-50. His work is based on the fieldwork conducted by him in Mahoba and surrounding areas.

25. Cunningham, *ASR*, II, pp.441-42.

26. N.S. Bose, op.cit., pp.167-68; K.K. Shah, op.cit., p.139.

27. N.S. Bose, op.cit., pp.167-68.

28. Ibid., p.168.

29. Vasdev Chaurasiya, op.cit., p.36.

30. Ibid., pp.37-39.

31. Ibid., pp.66-69.

32. Ibid., pp.83-84.

33. Cunningham surveyed this temple located in village Makarbai located about 10 or 11 miles north-east of Mahoba. CF. *Report of a tour in Bundelkhand and Malwa,1871-72 and in the Central Provinces, 1873-74*, Vol.VII, Calcutta, 1878,p.26.

34. Ibid.

35. Chaurasiya, op.cit., pp.114-115.

36. As quoted by Chaurasiya, op.cit., p.114.

37. Chaurasiya, op.cit,p.115.

38. Ibid., p.112.

39. Ibid., pp.110-11.

40. Ibid.

41. Cunningham op.cit., p.47

42. Rita Sharma and Vijai Sharma. *The Forts of Bundelkhand*, New Delhi, 2006, p.145.

43. Cunningham, op.cit.,p.47.

44. Ibid.

45. Rita Sharma and Vijai Sharma, op.cit., pp.143-44.

46. Cunningham, op.cit., p.47.

47. Ibid.

48. Ibid.

49. "Kalinjar Stone Inscription of the Time of Kirti Varman" *Inscriptions of the chandelle*, op.cit., pp.367-370.

50. Ibid., pp. 52-53.

51. This temple complex is discovered by us during the time of our fieldwork.

52. A.S.R., X, p.97; K.K. Shah, op.cit., p.69.

53. B.p.93

54. *I.A.*, XVII, pp.236.

55. K.K. Sah, op.cit., pp.70-71.

56. Cunningham, op.cit., X, pp.94-95.

57. K.K. Shah, op.cit., p.70.

58. Deogarh Rock Inscription of Kirtivarman, I.A. xviii, p.239.Also see, K.K. shah, pp.72-73.

59. "Mau Stone Inscription of the time of Madan Varman" *Inscriptions of the Chandella*, op.cit., pp.412-418.

60. K.K. Chakravarti, op.cit., p.131.

61. Ibid.

CHAPTER - 6

CENOTAPHS

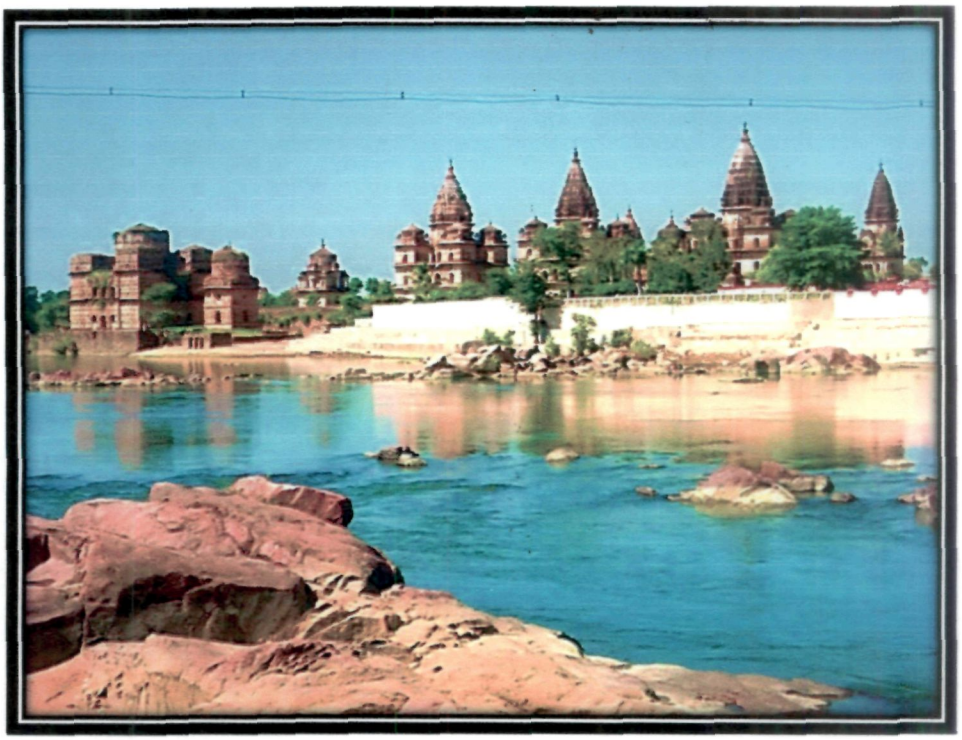
CENOTAPHS

The basic idea behind the construction of the *chhatris* (cenotaph) in the memory of the deceased is to provide permanence to his name. This kind of memorials are found in all ancient civilizations which are known by various designations such as tombs , statues, pyramids *samadhis* and *maqbaras* etc. The tradition of the construction of these memorials or *maqbaras* got momentum after coming of the Turks in India. Probably, the Muslim model of *maqbaras* may have encouraged the development of the Rajput *chhatri*.[1] After this the tradition of construction of these memorial monuments became common feature in almost all the Rajput states of Rajasthan, Malwa and Bundelkhand. During the 16th and 18th centuries, the construction of cenotaphs became the part and parcel of the building activities of the state. Their form and size underwent a drastic change. It appears that the erection of the memorial of the deceased assumed, the status of those of the successors of his nears and dears. This is the reason that we find the cenotaph of every deceased ruler raised by his successor. The purpose behind the raising the funeral monument appears to have created an aura around both the deceased as well as the living ruler.

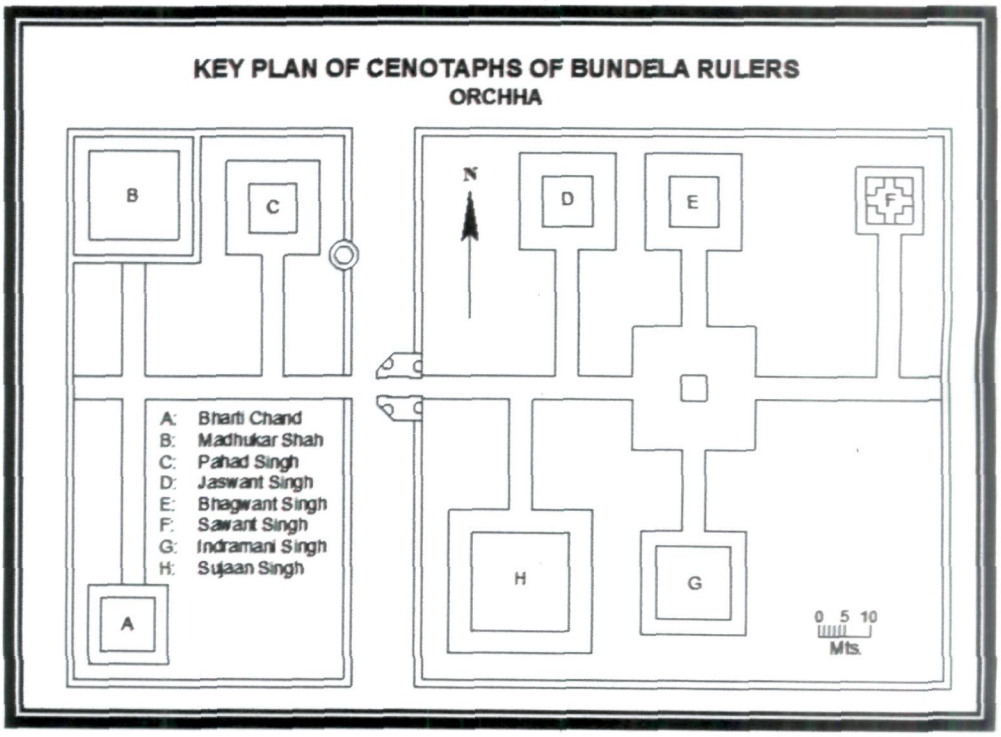
The cenotaph is generally a stone canopy resting on four, twelve, or more columns built over the actual stone, under which the ashes of the deceased may, or may not have been buried, on or near the spot of the actual cremation.[2] The size and form of the monument depended on the social, political and economic status of the ruler and his state. In fact these monuments were raised to cherish the memory of the rulers and their deeds so as to remind their successors and future generations of their glorious acts. This tradition of commemoration has produced a variety of monuments of architecture in different periods. These monuments were built on this belief that the dead would lead similar life after death. Therefore, they were open from all directions for cross ventilation and decorated with sculptures and paintings. Some of the mausoleums look like a palace in appearance.

The extant structures of funeral memorial at Orchha, Chanderi, Datia[3], Panna[4] and Chhatarpur[5] indicate prevalence of the tradition of erection of the memorials. Though prior to the shifting of capital at Orchha in 1531 the Bundelas ruled over Garhkundar but we do not come across any traces of cenotaphs there. Two reasons may

be ascribed behind the absence of these structures: one, escaping from our attention and two, not erection of the memorials by the successors.



A Panoramic View of Chhatri Group at Orchha (Plate No. 6.1)



Detailed Measurement Is Given Below of Key Plan (Plan No. 6.1):

S.No.	Part of the structure	Measurement in meters
1.	Length of compound	174.85
2	Breath of compound	107.9
3	Width of wall	1.5
4	Passages in the garden	4.50
5	Road between two gardens	12.5

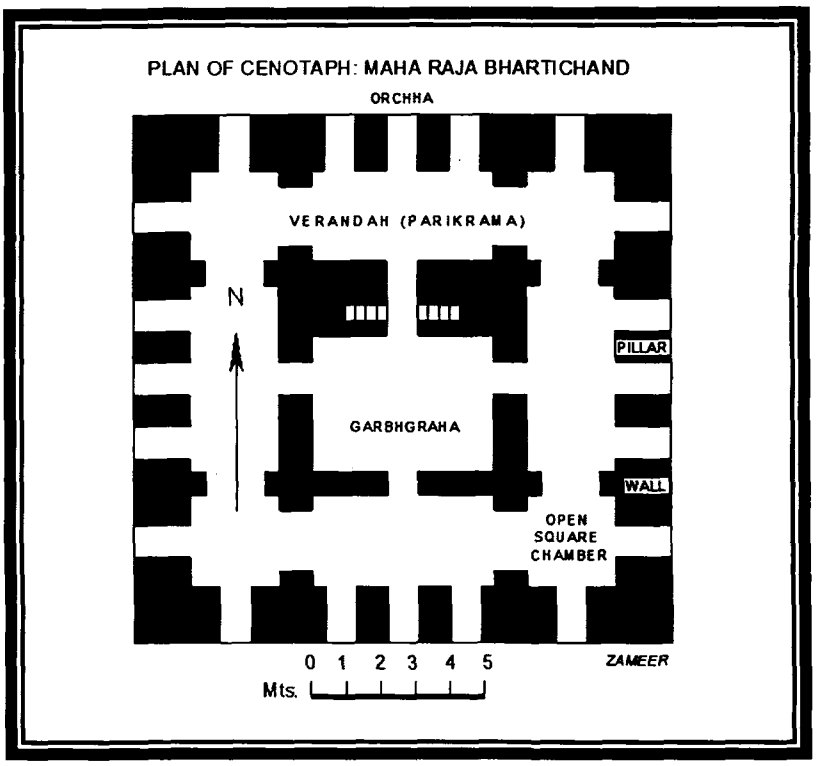
The first ruler of Orchha was Bharti Chand. So we can presume that the construction of *chhatris* was initiated by the Bundela rulers. The credit goes to Madhukar Shah who first built the memorial of his father Bharti Chand. This mausoleum stands in the back of the monument of his son of Madhukar Shah. We have given the Key Plan (See plan no. 6.1) of the cenotaphs at Orchha and a panoramic view of all the structures. (See plate no. 6.1)

Cenotaph of Raja Bharti Chand:

View of Cenotaph: Raja Bharti Chand (Plate No. 6.2)

This is the first double storeyed *chhatri* of Bundela ruler, constructed by Raja Madhukar Shah. It is square in plan. The *chhatri* is the base pattern of other cenotaphs of Bundela rulers. It is not as beautiful as that of other memorials. Because Orchha state was not prosperous at that time. The monument has a square *garbhgraha* in the middle and an open veranda surrounding it with pointed arched door. (see plate no. 6.2)

We have taken detailed measurement of each part of the structure. It is square in plan and its measurement comes to 14.90x15.40 mtrs. Detailed measurement is given below along with the ground plan and photographs. All measurements in meters unit (See plan no. 6.2).

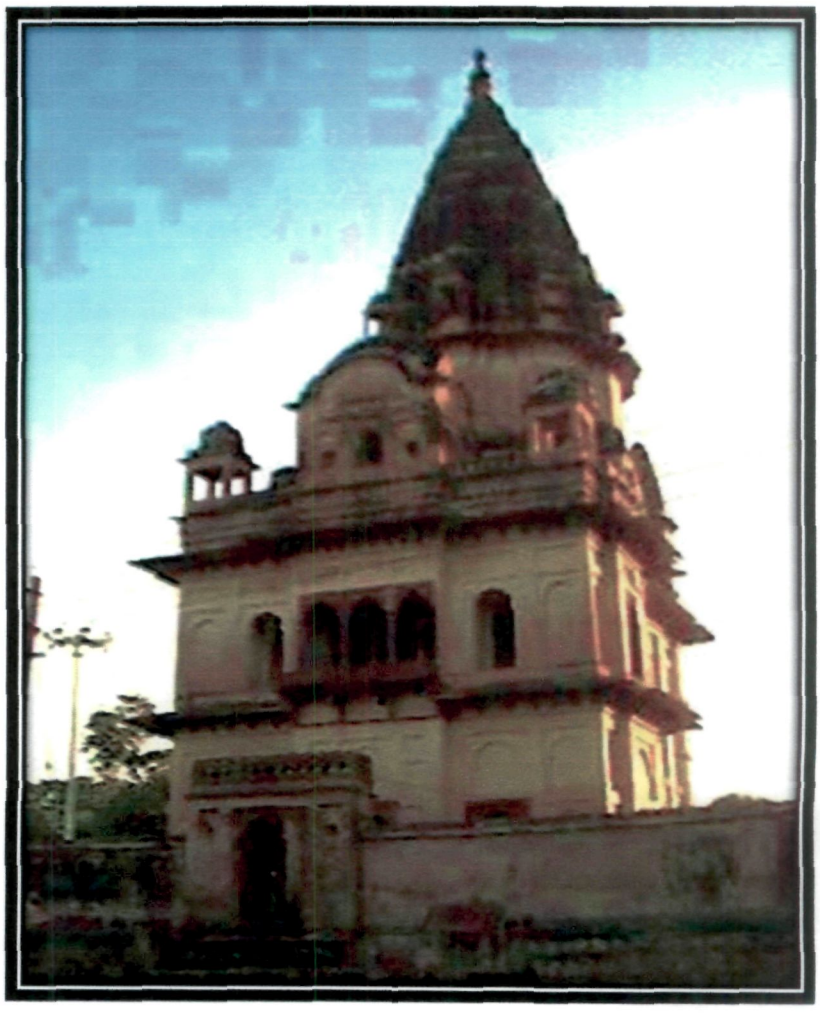


Dimensions of Chhatri of Maharaj Bharti Chand (Plan No. 6.2):

S.No.	Part of the structure	Measurement in mtrs
1.	Plinth	0.90
2.	Walls of all sides	15.40 x 14.90
3.	Width of outerwall	1.60
4.	Width of remaining pillars	0.90
5.	Varandah around sanctum	5.25 in length
6.	Width of the sanctum wall	0.93
7.	Measurement of sanctum	5.25 x 5.25

Cenotaph of Maharaja Madhukar Shah:

Madhukar Shah ruled over Orchha from 1554-1592 and was a contemporary of Akbar. During his reign the Bundela territory expanded far and wide. He led numerous campaigns against his adversaries. Besides consolidation of his administration, he built numerous temples and other buildings. He was follower of Lord Krishna but his wife was devoted to Lord Rama. In their differences his wife got upper hand and the Lord Rama was brought to Orchha and emerged as the principal deity of the royal family as well as the people of Budelkhand. Thus a temple was established known as the Ram Raja temple. It became pilgrimage for the people of Bundelkhand and the surrounding areas. His reign was very popular among the people of area.



Cenotaph of Maharaj Madhukar Shah (Plate No. 6.3)

He was succeeded by his son Ram Shah who built this *chhatri* in 1592-93. This structure follows common architecture of temple. It is enclosed by two boundary walls. The outer wall resembles with the fort. In the four corners of it, there are bastions (*burj*) like the fort (see plate no. 6.3). Inner wall is like ordinary enclosure with one entrance. This entrance is rectangular with decorated multifoliated arch. The apex is decorated with *kanguras*.

Statue of Lord Ganesha with Saraswati (Plate No. 6.4)

The rectangular entrance of main *chhatri* fronts the gate of both, the gate of inner as well as outer wall. On the upper part of the stone frame or *chaukhat*, there is an engraved statue of lord *Ganesha* mounted on mouse. On the right side of the Lord *Saraswati* (the goddess of learning) seated on a *swan* and holding Indian flute (*vina*) is engraved while on the left is one lady holding flapper or *chawar* (see plate no. 6.4).

This gate is again faces another entrance which is in the form of *toran*. This leads in the sanctum sanctorium which houses marble statue of Raja Madhukar Shah and his queen (See plate no. 6.5). This is the only *chhatri* which possess statue of the deceased ruler and his wife. Both are in sitting posture. The right hand of the queen is in the left hand of her husband while her left hand is in raised position and holding something. While the right hand of the Raja is in front of his chest.

Statue of King with Queen (Plate No. 6.5)

This is three storeyed structure. The southern wall allows entry to the terrace through a staircase opening outside. On the stone slab on the surface, there is grafity, which runs like as such (See plate no. 6.6)

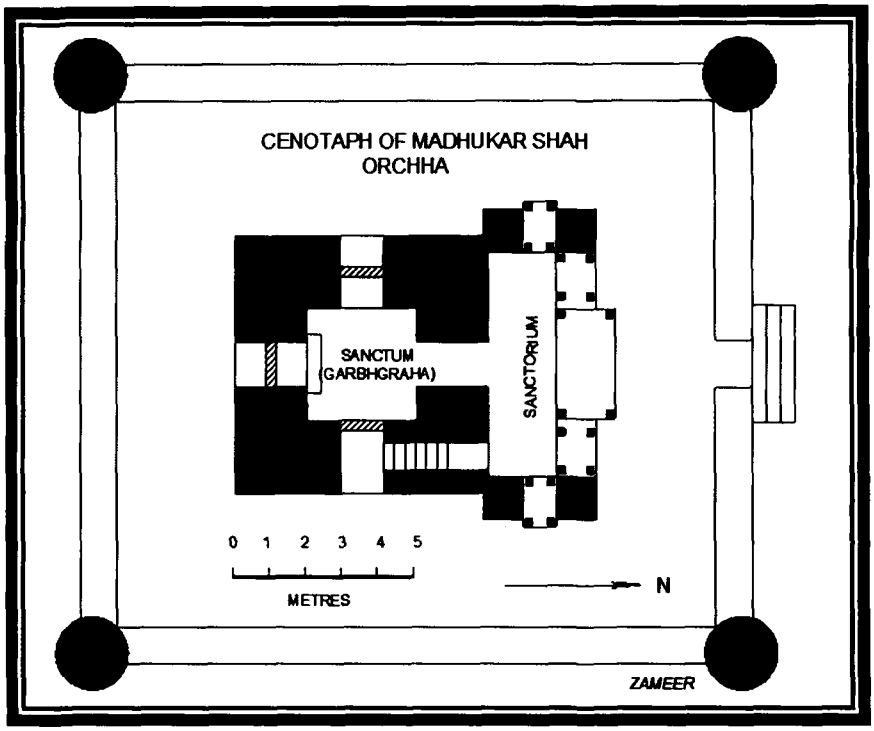
Grafity on Stone Slab at Door (Plate No. 6.6)

" Singhacharan sewak lalmauhsal

The name of a person is Lalmauhsal mentioned who is regular worshiper of this statue of Madhukar Shah and his wife.

Madhukar Shah succeeded by his eldest son Ram Shah who ruled over the Bundela territory between 1592 and 1605. After that he was dethroned by Bir Singh Deo, his younger brother with the help of Mughal army. In place of Orchha, Jahangir assigned him Chanderi and other areas. Therefore, his *chhatri* was erected at Chanderi.

We have taken detailed notes and measurements of the funeral memorial and prepared ground plan given below (See plan no. 6.3).



Dimensions of Cenotaph (Plan No. 6.3):

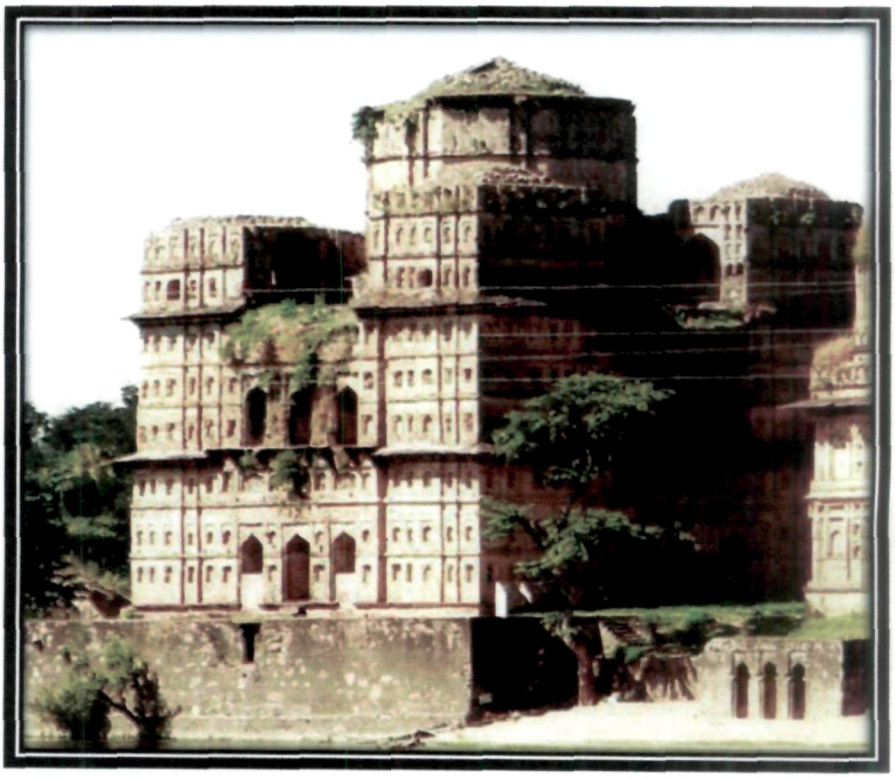
S.No.	Part of the structure	Measurement in mtrs
1.	Length of the outer wall	17.98
2.	Width of the outer wall	1.00
3.	Diameter of the bastion	1.00
4.	Entrance	1.20
5.	Side chambers of Portico	0.90x1.40
6.	Length of portico	6.10

7.	Width of the portico	1.88
8.	Width of four side wall of sanctum	2.93
9.	Size of the sanctum	3 x 3

The Cenotaph of Maharaj Bir Singh Deo:

The *chhatri* of the Bundela chief is located on the bank of the river Betwa (*Vetravati*). The water of this river touches the bottom of the structure making it a more scenic and beautiful. This memorial structure of one of the greatest Bundela ruler was built by his son Jujhar Singh in 1627-28.

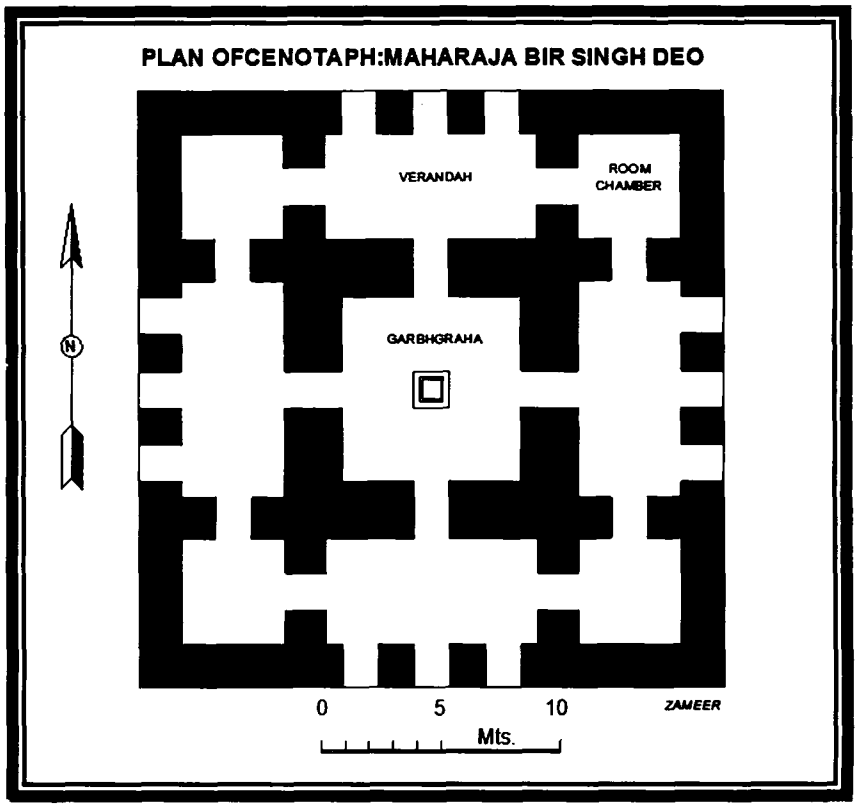
This structure was raised on elevated square platform. Its main entrance faces the river and below it, there is a square chamber and passage or stairs to reach up to the level of water (See plate no. 6.7). The river facing entrance was constructed with the belief that the deceased ruler would take regular bath and enjoy the natural beauty of the river in his next life.



Cenotaph of Bir Singh Deo Bundela at Orchha (Plate No 6.7)

This three storeyed memorial was a befitting tribute to the Bundela Chief who was not only expanded the territory of his kingdom but consolidated its administration. During his reign an enormous wealth poured in the state exchequer which was widely used in the construction sector. It is said that he had constructed 52 buildings in Orchha, Agra, Mathura Vrindavan and Banaras on the occasion of his 52nd birthday ceremony. The credit goes to him for putting Bundelkhand on political map of India.

This is the reason that his cenotaph is as high as his personality. It is biggest in all respects- length, breadth, and height. We have documented this structure in the form of measurement and photographs, following ground plan is prepared (See plan no. 6.4):



Dimensions of the Cenotaph of Maharaja Bir Singh Deo (Plan No. 6.4):

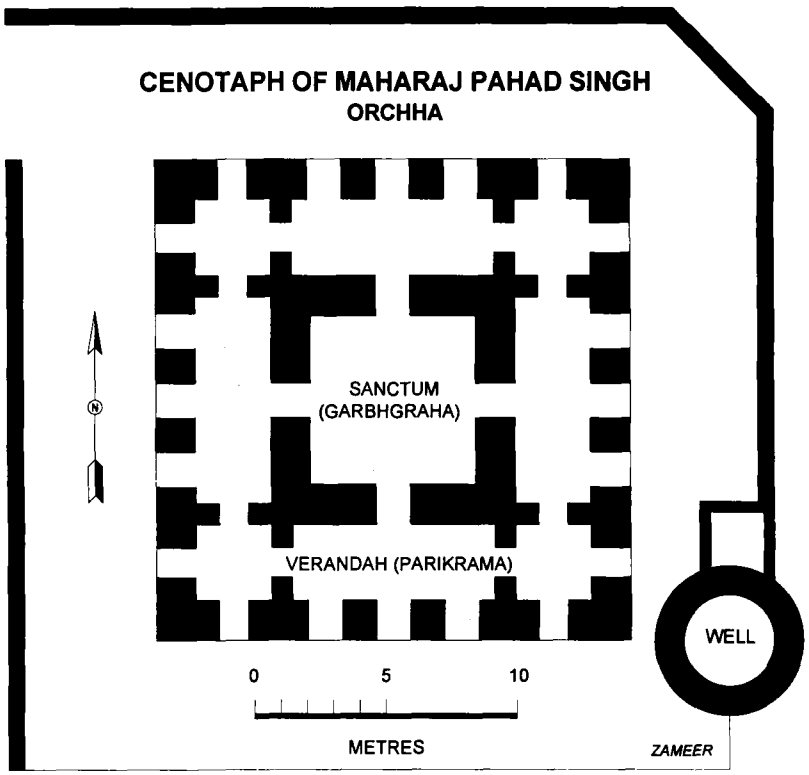
S.No.	Part of the structure	Measurement in mtrs
1.	Height of the plinth	1.0
2.	Measurement of outerwalls	24.3
3.	Width of entrance pillar	1.75
4.	Size of corner chamber	4.3 x 4.3
5.	Size of open veranda	8.8x4.3

6.	Size of square sanctum	7.50x7.5
7.	Measurement of entrance	1.50
8.	Width of outer wall of sanctum	2.35
9.	Size of sanctum platform	1.5

Memorial of Maharaja Pahad Singh:

Pahad Singh was the younger brother of Maharaja Jujhar Singh and the second son of Raja Bir Singh Dev. He was made the ruler of Orchha in June 1642 by the Mughal Emperor Shah Jahan. After the murder of Jujhar Singh by the Gaunds in 1635. He was given Orchha because he sided in war with the mughals against his brother Jujhar Singh. He died in 1654.

Cenotaph: Raja Pahad Singh (Plate No. 6.8)



Dimensions of the Memorial Structure of Pahad Singh (Plan No. 6.5)

S.No.	Parts of the structure	Measurement in mtrs
1.	Size of the Platform	18 x 18
2.	Breadth of the Entrance	1.30
3.	Length of open varandah	7.70x2.85
4.	Size of sanctum chamber	6.30 x 6.30
5.	Breadth of the Entrance to the sanctum	1.30
6	Breath and length of open square chamber	2.85x2.85
7	Width of the outer and inner wall	1.50
8	Diameter of the well	3.50

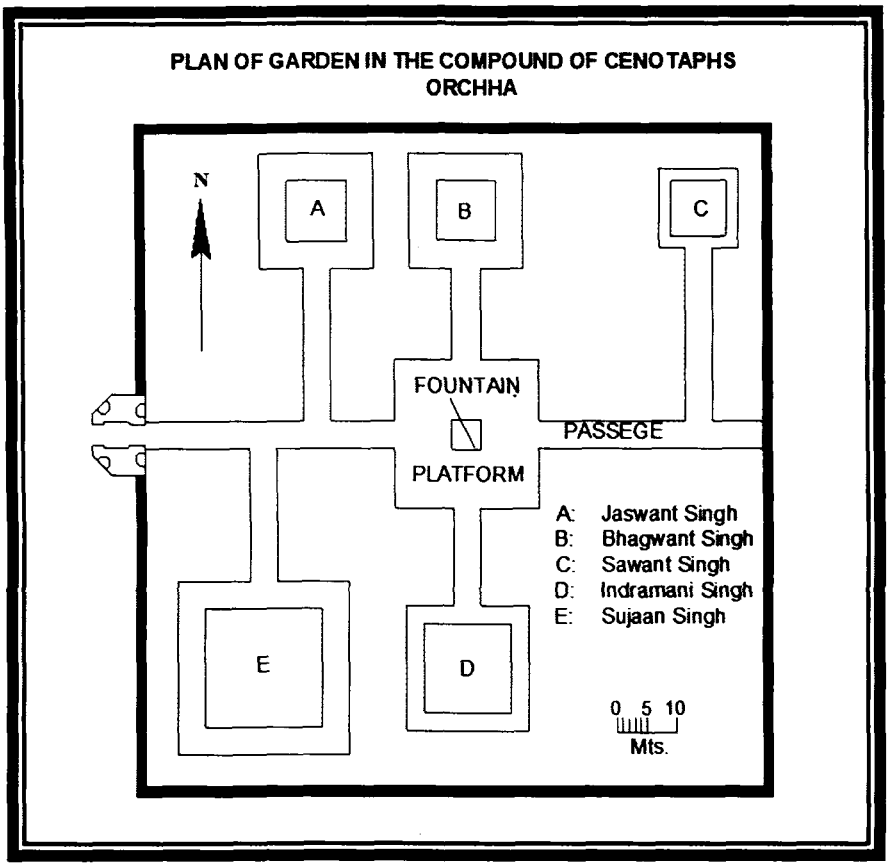
The *chhatri* of Pahad Singh appears to have been constructed by Sujan Singh sometime between 1654 and 1673. It is square in plan and located in an enclosure. This double storey structure is not different from other structures. In the corner of the southeast a well exists whose water was probably used for watering the garden of the *chhatri* complex adjacent to it (See plate no. 6.8).

Group of Cenotaphs in an Enclosure:

There are five cenotaphs in an enclosure. The entrance is in the south. They all are set in the *Chaharbagh* type garden. This is a rectangular high enclosure wall with an entrance gate. There is a sitting place on both sides of its entrance. Then entire space or garden is divided into four equal parts. There is a rectangular platform in the middle which contains a small *hauz* with a fountain in the middle of it. To divide garden into four parts four passages were laid out. One passage starts from the main entrance and reaches upto raised platform. Similarly three pathways start from the platform and joins the *chhatri* is located in the east and west (See plate no. 6.9).

Garden in the Cenotaph Complex (Plate No. 6.9)

The north passage meets the enclosure wall. This entire garden space was meant for five funeral memorials. Two in the right and three in the left direction but in the former side there are only two cenotaphs. Space for third is left vacant of five, four *chhatris* are of equal size and similar in architectural style. One is small in size but beautiful from the point of view of art.



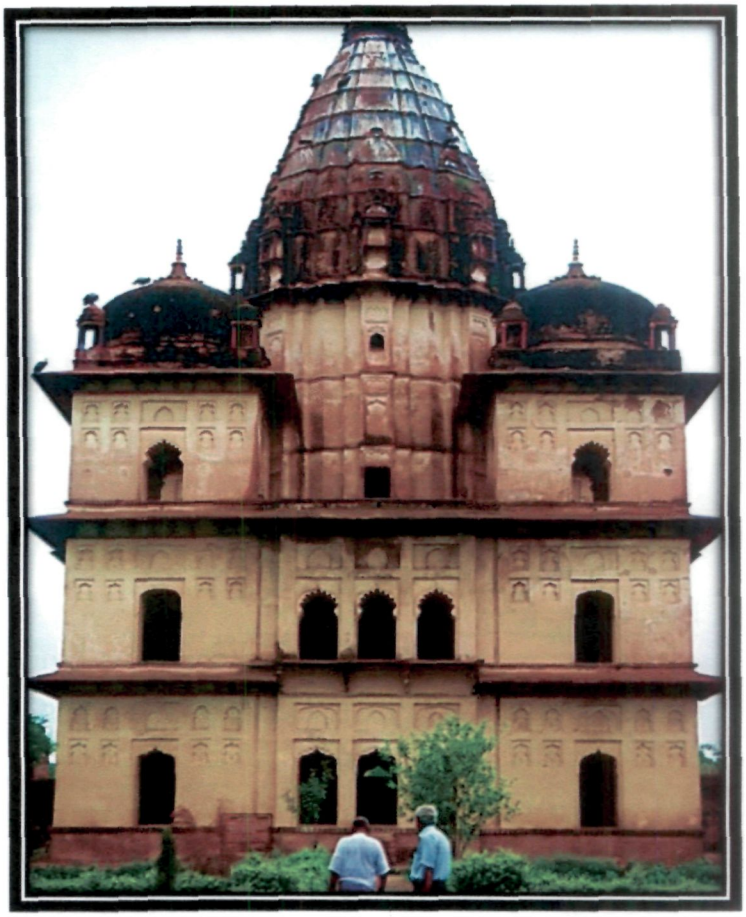
Measurements of the Plan of Garden (Plan No. 6.6):

S.No.	Part of the structure	Measurement in mtrs
1.	Length of wall	103
2.	Breath of wall	107.9
3.	Length and Breadth of Middle Platform	24.2x24.2
4.	Length and Breadth Of Fountain	4.9x4.9
5	Breath of four sides Passages	4.50
6	Breadth of Entrance	3.4
7	Both sides Platform at the Entry Gate	4.2
8	Width of Boundary wall	1.50
9	Hexagonal shaped Gate wall	2.00

Cenotaph of Raja Sujan Singh:

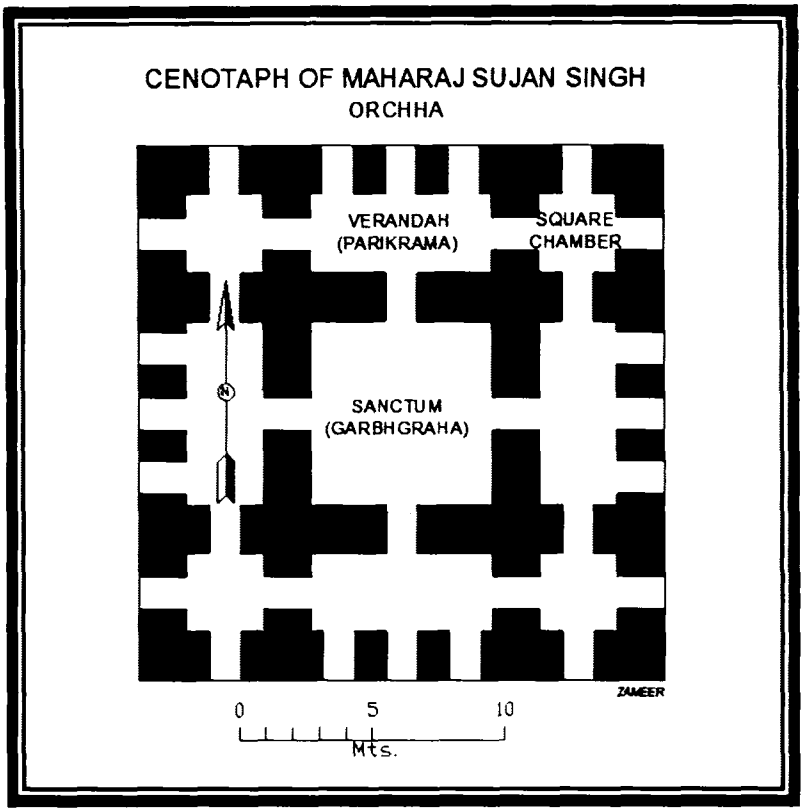
The three storeyed *chhatri* of Sujan Singh is located on the right side of the entrance gate (See plate no. 6.10). He was the son of Maharaja Pahad Singh whom he

succeeded in 1653 and expired in 1672 without any issue. Therefore, the command of the Orchha state passed into the hands of his younger brother Indramani. He initiated to erect this cenotaph but remained incomplete which was later completed by Jaswant Singh during his reign any time between 1675-84.



Cenotaph of Raja Sujan Singh (Plate No. 6.10)

It is the earliest *chhatri* of this campus, which shows the developed stage of Bundela cenotaph architecture. It has a square plan. Its square sanctum is in middle and surrounded by rectangular chambers with three arched doors towards the courtyard. The sanctum contains four arched doors in each direction leading to the outer rooms. There are domes surrounded by kiosks on each corner above square rooms. Besides, there is a heavy decoration in typical Bundela architecture. We have taken details measurements of the structure. The ground plan is given below (See plan no. 6.7).



Dimensions of Cenotaph Raja Sujan Singh (Plan No. 6.7):

S.No.	Part of the structure	Measurement in mtrs
1.	Length of the wall	19.80
2.	Breath of the wall	19.80
3.	Width of the outer wall	1.80
4.	Length of open veranda	6.80x2.9
5	Length and Breadth of side chamber	2.9x2.9
6	Measurement of Entrance	1.20
7	Size of Sanctum	6.8x6.8
8	Width of Inner sanctum wall	1.80

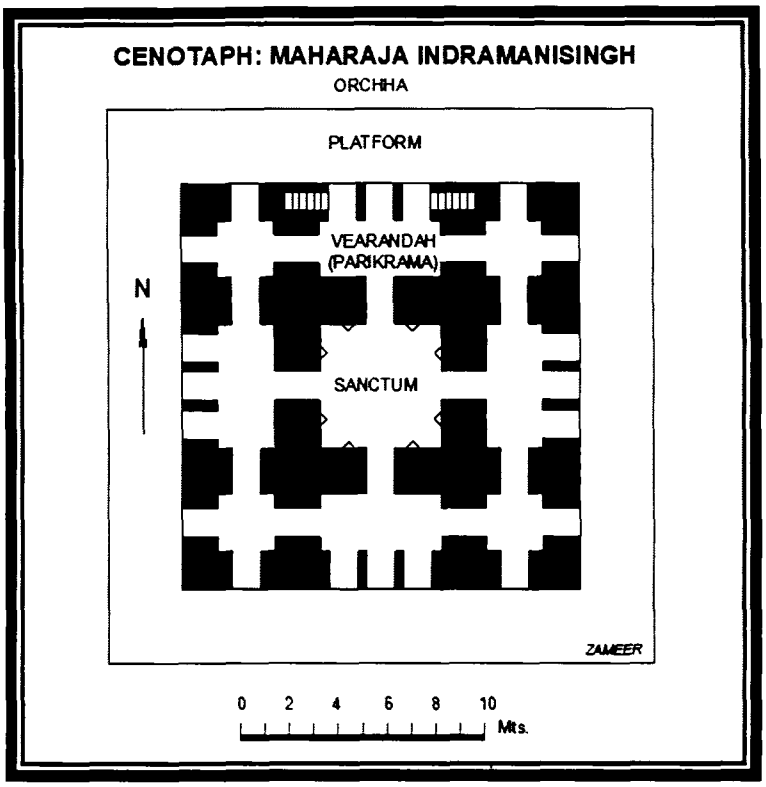
The Cenotaph of Maharaj Indramani Singh:

Indramani was younger brother of Sujan Singh who died issueless therefore the responsibility of Orchha fell on his shoulders. He ruled over the state from 1672 to 1675. His son succeeded him who built this memorial structure in 1675.

This is a three storeyed structure built in square plan. The sanctum sanctorium too is on the identical pattern. The sanctum is surrounded by rectangular chamber with three arched door. Each corner contains a square room, which are connected with the veranda on both sides (See plate no. 6.11).

Cenotaph of Raja Indramani Singh (Plate No. 6.11)

The detailed measurement of the cenotaph is taken and on this basis following ground plan is prepared (See plan no. 6.8):



Detailed Dimensions with Ground Plan are given below (Plan No. 6.8):

S.No.	Part of the structure	Measurement in mtrs
1.	Size of the platform	-
2.	Width of the Pillars	0.38
3.	Length and Breadth of Veranda	5.0 X 2.30
4.	Square sanctum sanatorium	5 X 5

The Mausoleam on the Left Side of the Entrance:

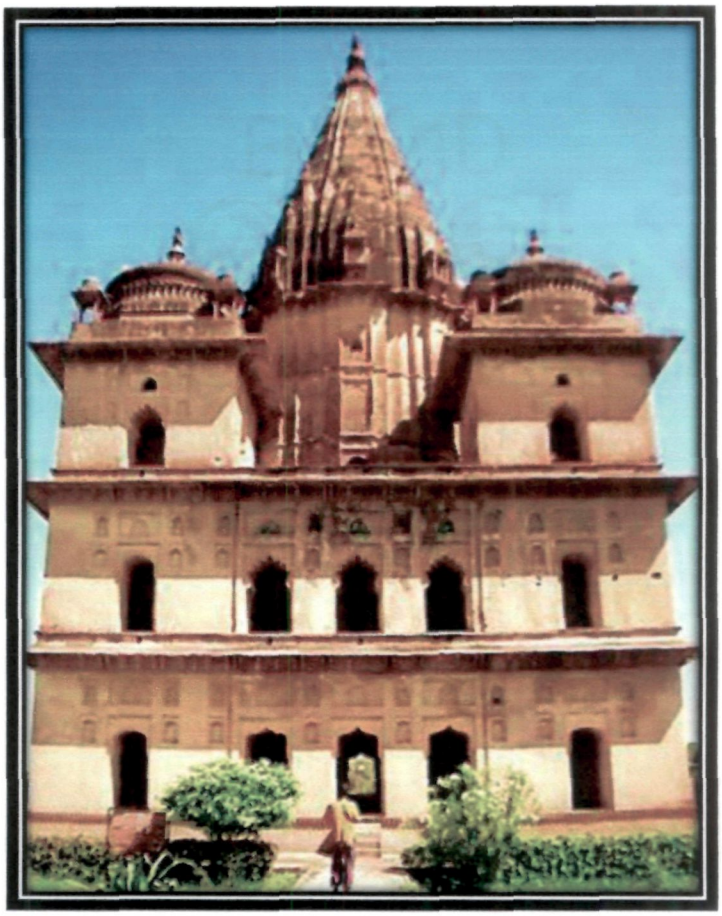
There are three cenotaphs in this directions. Of two are of identical size while the third is small therefore occupy a less space.

The Cenotaph of Jaswant Singh:

This mortuary monument stands just in opposition direction to the cenotaph of Maharaja Sujan Singh. Jaswant Singh got the reigns of Orchha in his hands after the

demise of Indramani in 1675. He remained in power till his death in 1684. He obtained the honour of *khillat* from Aurangzeb.

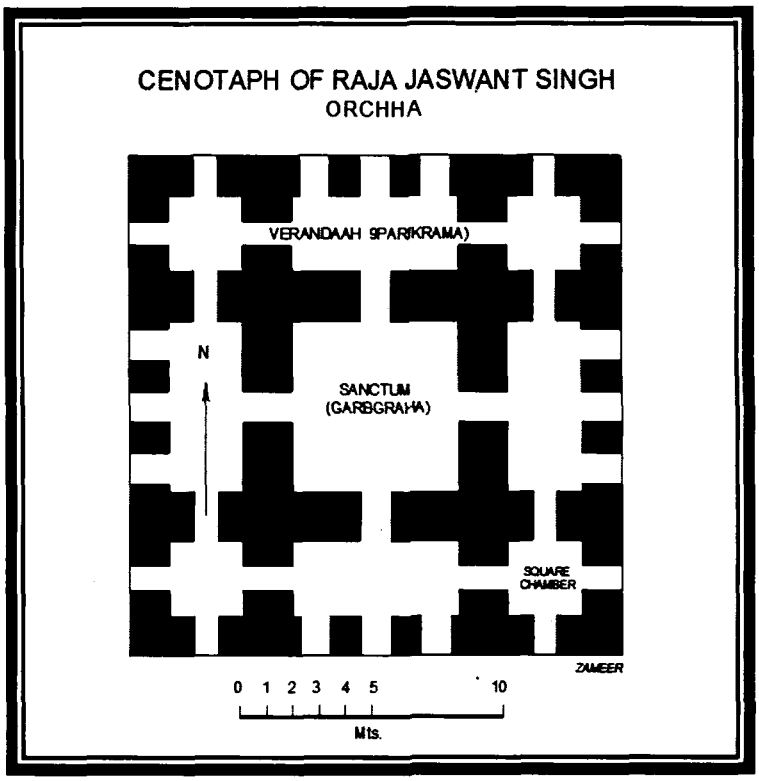
Since he was succeeded by his minor son Bhagwant Singh therefore this memorial monument was built by his another wife Amar Kunwar (wife of the deceased ruler) in 1684.



Cenotaph of Raja Jaswant Singh (Plate No. 6.12)

This funeral memorial has a square plan with arched doorstep in all four directions. It is surrounded by rectangular passage which contains three arched doors towards the courtyard. There are four square chambers on each corner which are connected to the passage on both sides. This three storeyed structure has doors, rooms and side passage similar to other previous structures in the campus. The *shikhar* is decorated with inverted lotus at top of the domes.

Besides, the *kalash,* niches and arched doors are according to the parameters and fashion of the Bundela architectural style (See plate no. 6.12)



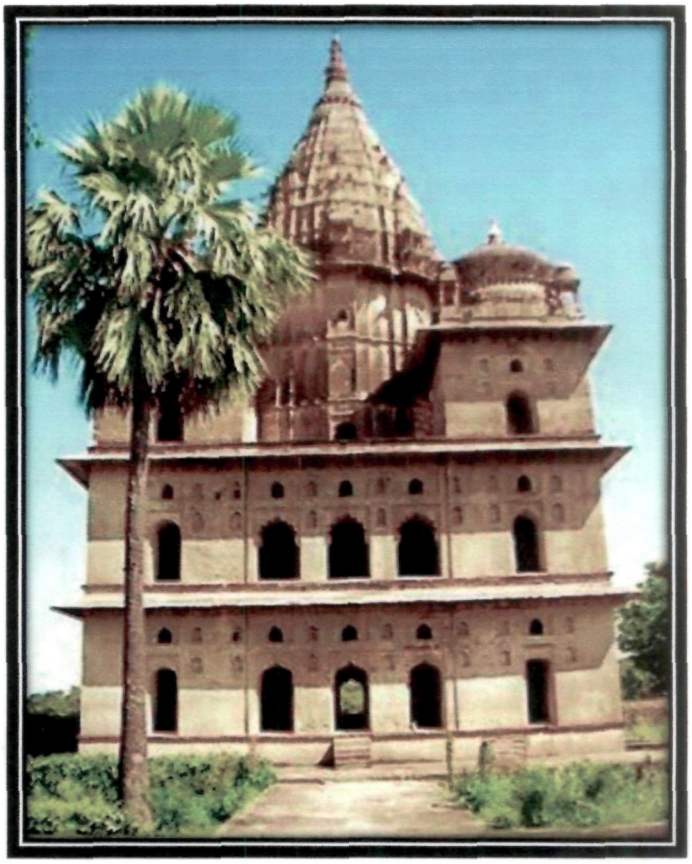
Detailed dimensions with ground plan are given below (Plan No. 6.7):

S.No.	Part of the structure	Measurement in mtrs
1.	Measurement of outerwalls	18.65x18.65
2	Width of outer walls	1.50
3	Width of sanctum wall	1.85
4	Size of sanctum	6.35x6.35
5	Size of Open sanctorium	6.35x2.85
6	Size of open side chamber	2.80x2.80
7	Breadth of entrance	1.15

The Mausoleum of Bhagwant Singh:

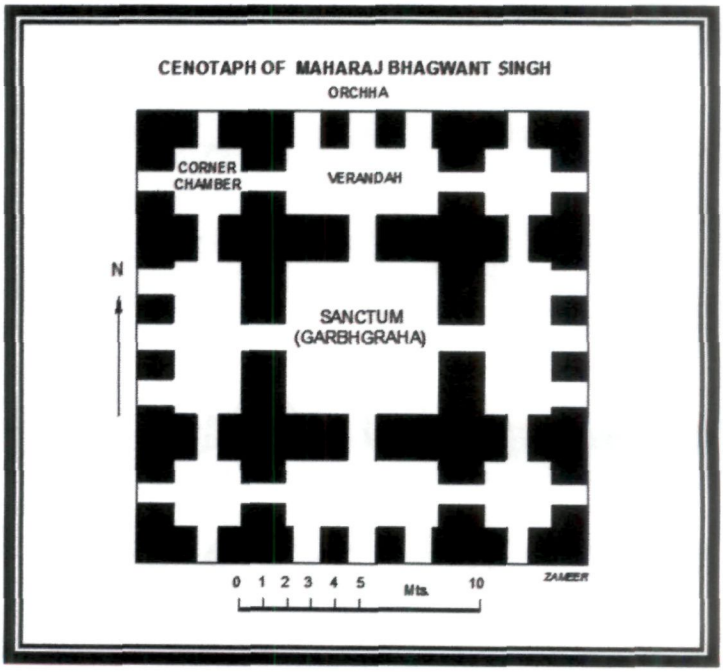
The resting ruler Bhagwant Singh was the son of Jaswant Singh. He succeeded his father in 1684 just after his demise. The administration was run by Maharani Amar

Kunwar. But he expired prematurely therefore the Maharani adopted Udot Singh in 1689 who belonged to the Hardaul branch of the family.



Cenotaph of Bhagwant Singh (Plate No. 6.13)

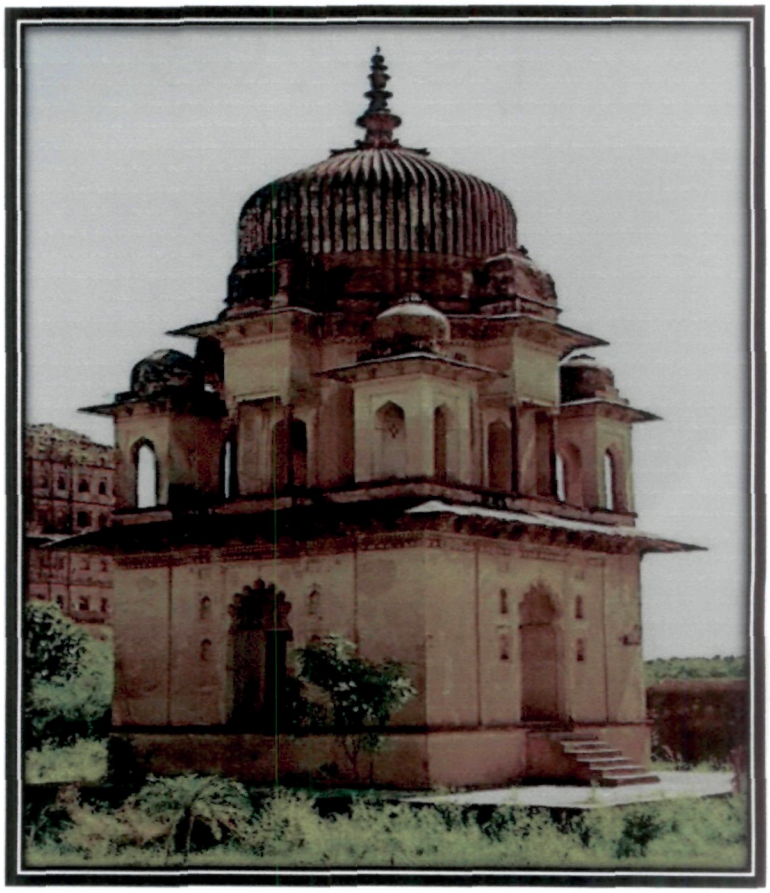
Detailed measurements and photographs are taken by me and the ground plan is as follows:



S.No.	Part of the structure	Measurement in mtrs
1.	Length and Breadth of outerwall	18.65x18.65
2	Size of open veranda	6.35x2.80
3	Size of square open chamber	2.80x2.80
4	Width of outer wall	1.50
5	Width of inner wall	1.85
6	Breadth of entry point	1.15

The credit of building of this *chhatri* goes to Udot Singh which was erected in 1689. The structure possesses similar kind of plan with identical square rooms, rectangular passage and topped by domes. It has *chhajja* and *jangas* below the Nagar *shikhars*. This belongs to the Bundela school of architecture.

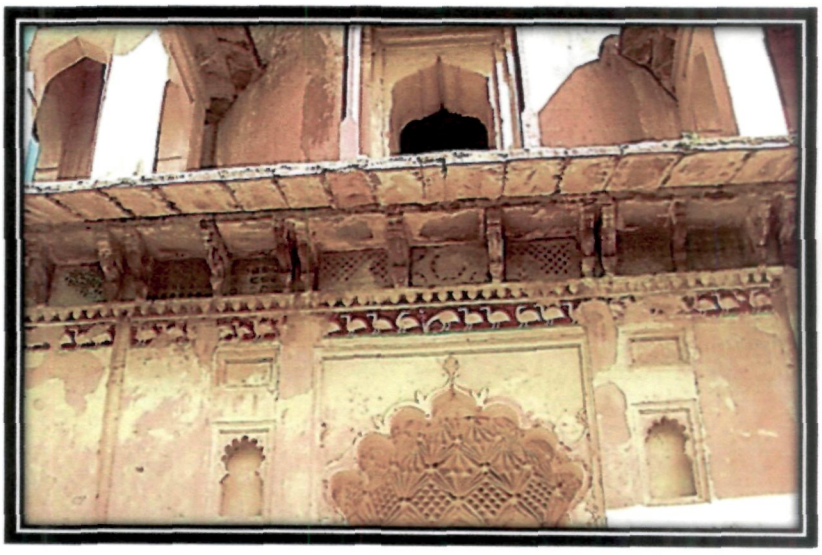
The Cenotaph of Maharaj Sawant Singh:



Cenotaph of Raja Sanwant Singh (Plate No. 6.14

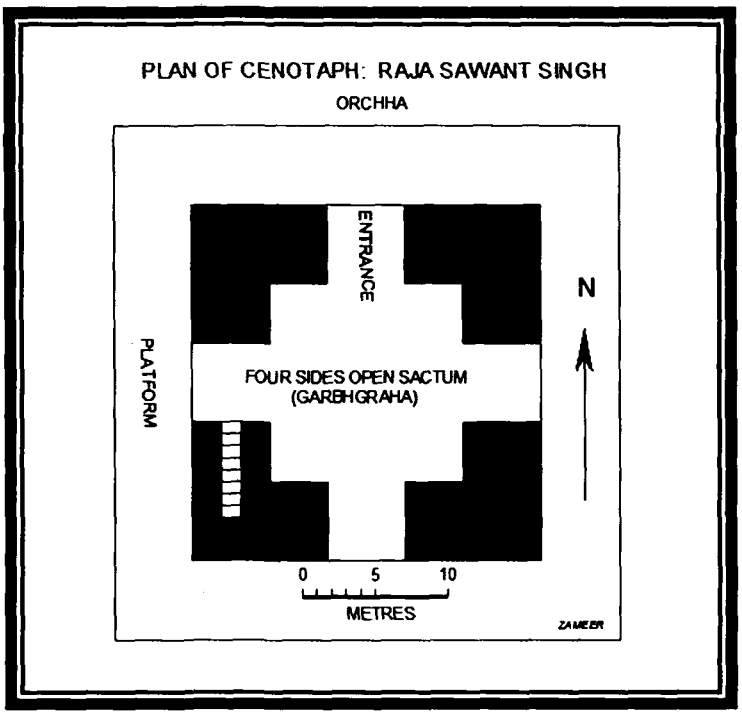
The resting place third in row in the left side belongs to Sanwant Singh who ruled over Orchha from 1752-65. He was the son of Prince Puran Singh who died in lifetime of his father Maharaja Prithvi Singh therefore Sanwant Singh, grandson, succeeded his grandfather. After assuming power he maintained cordial relations with the Mughal emperor Shah Aalam. In return he received a royal banner and title of '*Mahendra*'. His son Het Singh built this memorial monument in 1765. It is quite different from other cenotaphs in the compound. It is quite small in size and shape but extremely beautiful from the point of view of art and architecture.

Domed Roof and Ceiling Painting (Plate No. 6.15)



Paintings of Animals in between the Brackets (Plate No. 6.17)

It is square in plan and the sanctum sanctorium too is in identical form. It has four entrances in each direction. It has no passage like other cenotaphs but have a closed *veranda* with a sitting space, Inner and outer walls are decorated beautifully with paintings. The monument contains domes, kiosks and one half kiosk in each direction. The size of the *chhatri* was according to the economic status of the state.:



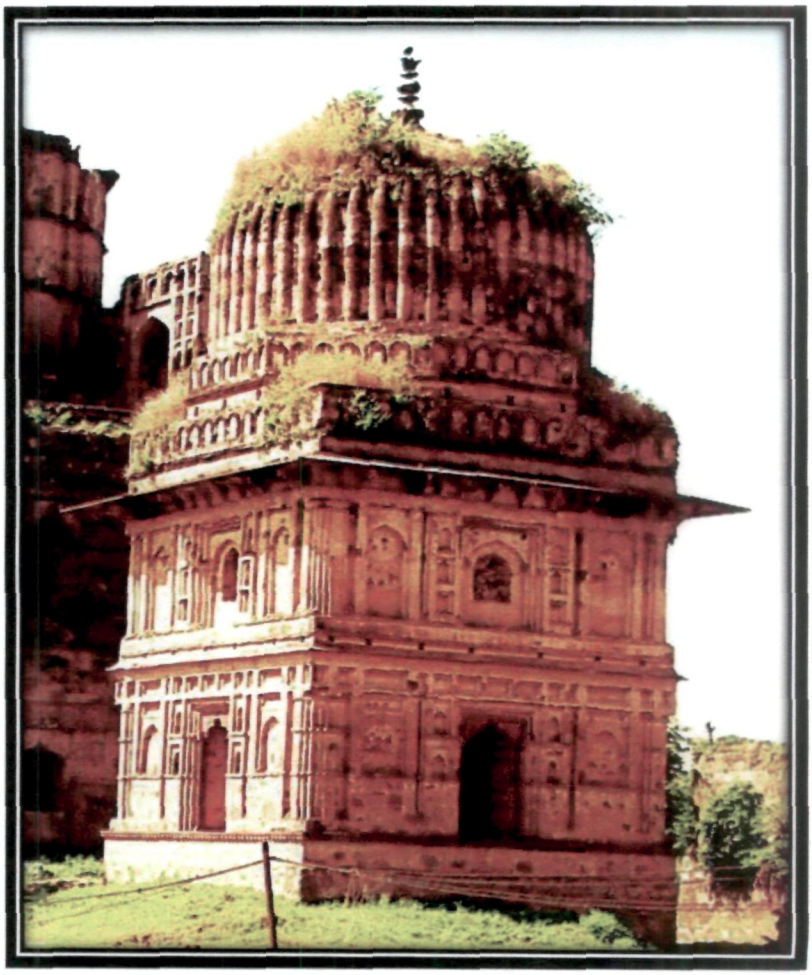
Dimensions of the cenotaph of Sanwat Singh:

S.No.	Part of the structure	Measurement in mtrs
1.	Size of the platform	13 x 13
2.	Length and width of Entrances	2 x 2
3.	Size of sanctum sanctorium	5 x 5
4	Width of wall	2.0

Besides these above ten mausoleum there are others too in the vicinity. Prominent among them are :the cenotaphs of **Kirpa Ram Gaur** and **Banka Ummed Singh.** Kirpa Ram Gaur was the military commander during the time of Maharaja Bir Singh Dev Bundela. He earned popularity by his victorious campaigns against enemies. It is the only *chhatri* which belonged to a person of non-ruling family background.

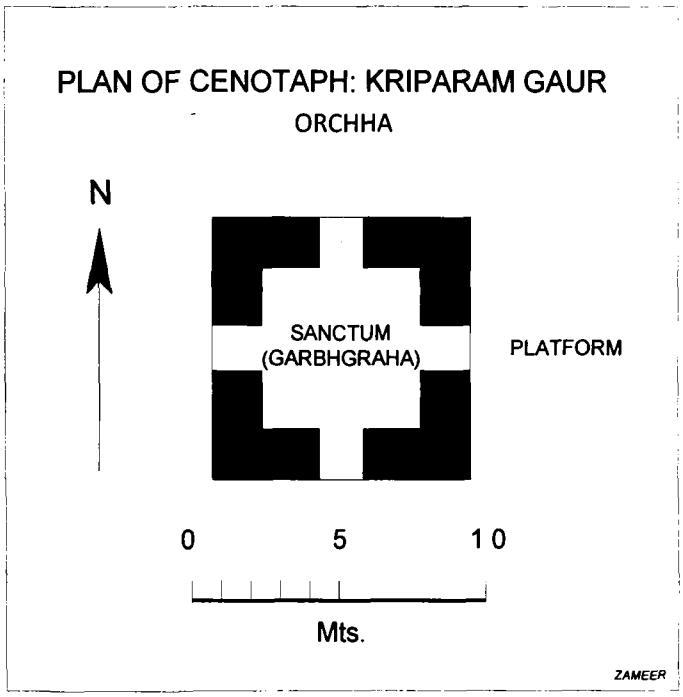
Its location enhances the status of a resting person. It is just four to five metres away from the cenotaph of Bir Singh Dev Bundela. In fact it looks like a miniature form of above cenotaph. In other words both appear as a pair. It too is located on the bank of the Betwa river and adjacent to the mausoleum of his master Bir Singh Dev.

The *chhatri* is on elevated square platform and the sanctum sanctorium too is square. It appears that this double storey structure remained incomplete. It would be interesting to investigate about the name of the person who raised this memorial.



Mousoleam of Kripa Ram Gaur (Plate No. 6.18)

The detailed documentation is in the form of photographs and measurement is done. Some of the photographs and ground plan is given below:



Dimensions of the cenotaph of Kirparam Gaur

S.No.	Part of the structure	Measurement in mtrs
1.	Size of outer platform	22.80 x 22.80
2.	Platform of the structure	8.8 x 8.8
3.	Width of the Entrance	1.5
4.	Length of the Entrance	1.10
5.	Size of the sanctum	5.4 x 5.4

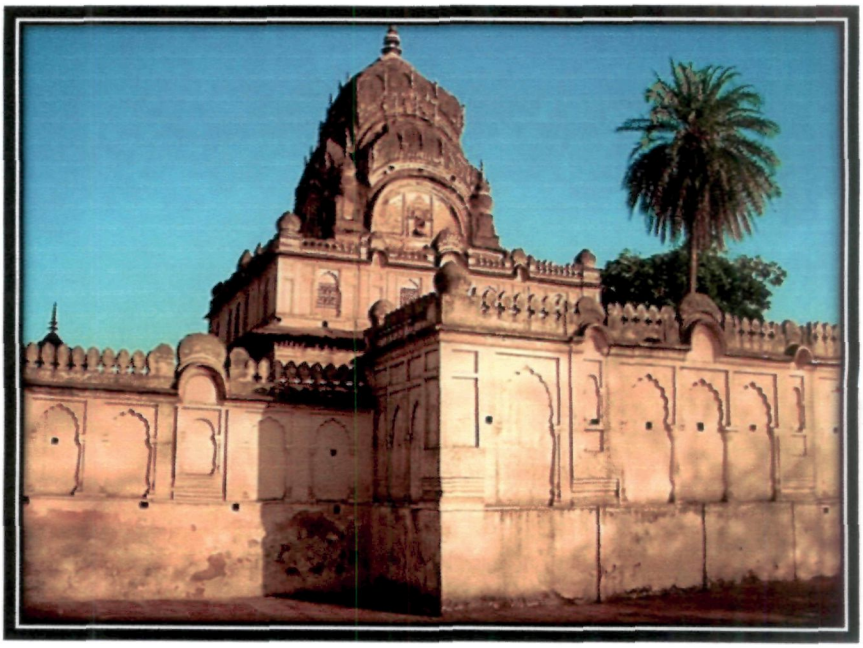
Another cenotaph belongs to Banka Umed Singh who was the landlord of Bankapahad and the *Qiledar* of Orchha fort and expired in V.S. 1801 (A.D. 1744) at Orchha. He was the descendant of Hardaul and son of Rai Singh (a brother of Maharaja Udot Singh). Though he belonged to the ruling family but was not in the line of succession.

The cenotaph is located adjacent to the outside of the *chhatri* complex and rectangular in plan and have a *mandap* in identical design. It has three arched door in front and two in both sides. The structure contains the image of Umed Singh, his wife and consort. Three liones are carved on the cenotaph. The sanctum is surmounted with small dome.

Mousoleum of Banka Bahadur Singh (Plate No. 6.19)

Cenotaph of Raja Bhagwan Rao:

There are many cenotaphs of Bundela Rulers in Datia but I surveyed only chhatri of Raja Bhagwan Rao. The cenotaph of Raja Bhagwan Rao, constructed by his son Raja Shatrujit Bundela in Datia.



A View of Cenotaph (Plate No. 6.20)

Cenotaph is well planed and very beautiful. The mausoleum is only single story. Domed roof is very attractive, all sides were paintings of God- Godesses and warriors, kings in different moods. Birds, animals are also found in this painting. Colours are used in this cenotaph red, green, black, and white.

Painting on Domed Roof (Plate No. 6.21)

Wall Paintings on Cenotaph (Plate No. 6.22)

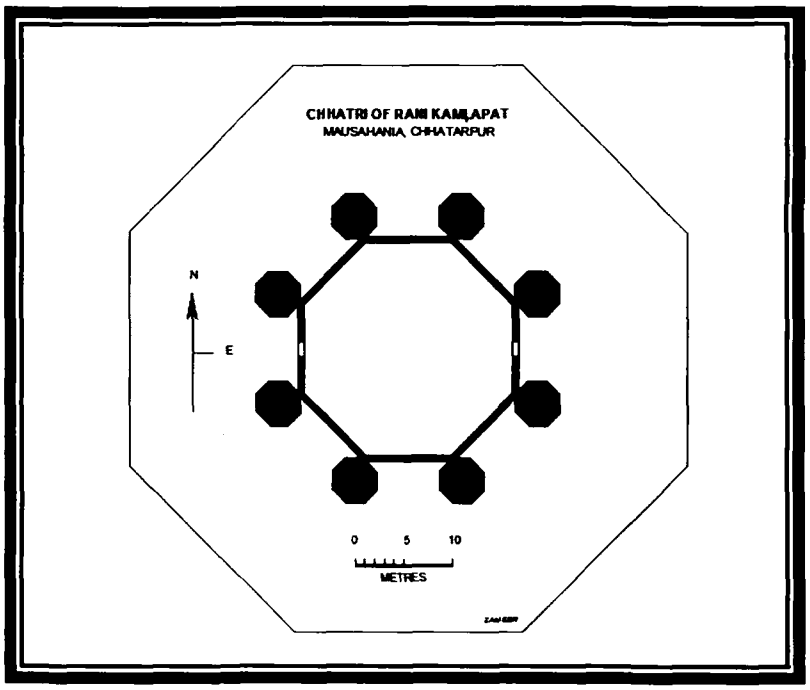
Cenotaph of Rani Kamlapat:

The *chhatri* is located near the Dhubela Tal at Mau Sahania in Chhatarpur. Raja Chhatrasal constructed *Samadh*i for his patrani Kamlapat. The Samadhi is ornamented in coloured tiles and the dome covered with blue glazed tiles (See plate no.6.24). Though the ornamentation is executed in the tawdry superficial style of the later Muslim buildings, (See plate no.6.23)

Cenotaph of Rani Kamlapat (Plate No. 6.23)

Paintings on Wall and Roof (Plate No. 6.24)

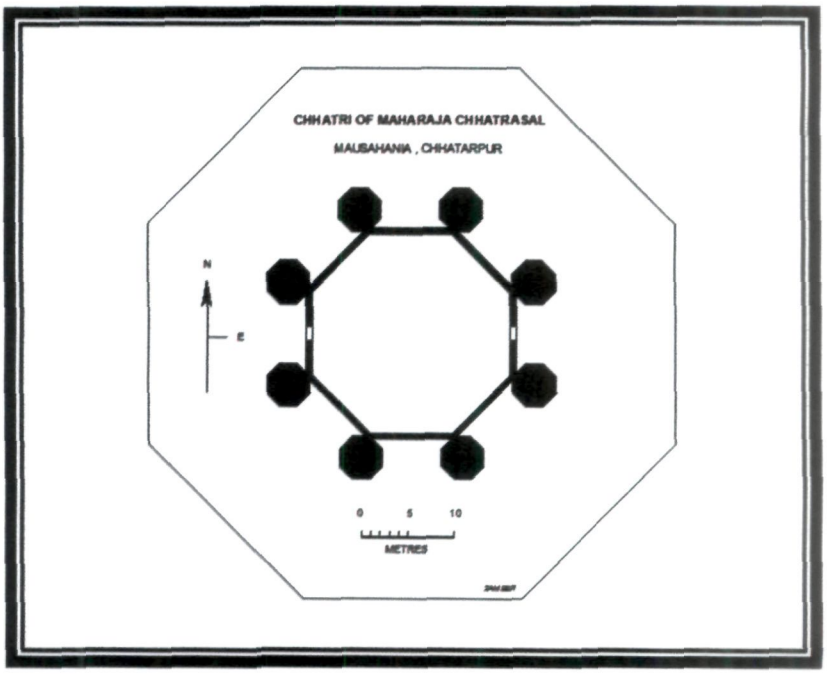
From a distance the whole building looks very attractive. It is built on a raised platform. The doors and walls are decorated with beautiful paintings. Monument is having beautiful collection of 180 paintings made up of Fresco technique. Forty-eight petaled lotus flowers spread over seven domes. It is ascribed to Kamlapat. The Samadhi is built on the pattern of Samadhi,s Guru Pran Nath of Panna. We surveyed and take measurements of cenotaph. It is octagonal structure and each corner octagon minaratets are built. Measurement of Cenotaph: Total area of octagon compound 56.70 X 56.70, Width of wall .50, Entrance breath 1.5, Octagon chhatri 21,23 X 21.23, Octagon minarates of each side 4.56 X 4.56 And platform of each side 17.10. All measurements are in metres.



Cenotaph of Raja Chhatrasal:

This beautiful example of Bundeli architecture was built by Baji Rao Peshwa (First) in the memory of Maharaja Chhatrasal in 1736 A.D. Maharaja Chhatrasal ended his journey of life on 19th Dec. 1731. He measurements of octagon cenotaph and each side minarets are same *chhatri* of Rani Kamlapat.

Cenotapph Maharaj Chhatrasal (Plate No. 6.25)



Above survey of the cenotaphs of the Bundela rulers is confined only to Orchha. It becomes clear from our study that the constructions of these structures become the part and parcel of the building tradition of the state. Basically efforts were made to build as majestic and beautiful as the royal palaces with the belief that the soul of dead would lead a life with full comfort. This was the reason that the *chhatris* are within the strict parameters of geometrical symmetry. Some of the memorials contain

the characteristics of the temple architecture. They had *shikhar* decorated with inverted lotus at the top of the domes. Another feature is the *Kalash* which is also the part of the temple architecture. Besides this, niches and arched doors are according to the parameters and fashion of the Bundela architectural style. The decoration of walls and roofs with mythological paintings, flower designs and sculptures enhanced its beauty from the aesthetic point of view. We may conclude that during this period the cenotaph architecture received structural refinement and grace of design and form.

Besides Orchha other Bundela capitals and centres too have memorial monuments namely, Datia, Panna, Mau Sahania and Chanderi etc. It would be interesting to make a comparative study of the structures with that of Orchha. That we would take later on.

An analysis of different parts and sections of the cenotaphs of Orchha demonstrates the development in styles, techniques and forms of the structures. It would be fruitful to study individual part of the mausoleum to trace the changes if any, which have taken place during two centuries of their rule.

The study may be classified into ten categories (i) : plans (ii) Sanctum-sanctorium, (iii) domes (iv) Arches (v) Squinches (vi) Pillars (vii) Roofs (viii) Shikhars (ix) Varandah (x) Brackets.

Ground Plans and Form:

The characteristic of the cenotophs at Orchha is that they all are on square or rectangular raised platform. The plinth is high and reached by a flight of four to six stairs from all four sides.

The mausoleum of Bir Singh Bundela has two platforms: One rectangular and other square above the former. The corner of the upper platform is decorated with a pattern of red sand stone called *jhalar* in local parlance. While all other memorial structures have only one platform which is decorated with same stone *jhalar*. Second common element is that the construction of wall starts from the quadrangular platform in all the structures. Third point is that all the funeral-memorials are in perfect geometrical patterns.

Goetz writes that the *chhatri* of Bir Singh Dev evolved from the Muslim *baradari* while Chakravarty equates the above *maqbara* with that of a palace while others are in the form of temples.[7] The analysis of the extant structures encourages us to say that the memorial structures including Bir Singh Deo carry combined patterns of palace and temple structures. The example of the cenotaph of Bharti Chand can be cited in this context. This memorial is encircled by fortress palace like enclosure and the sanctum- sanctorium is in the middle where the statue of Bharti Chand with his wife is installed in multifoliated arched niche within an arched blind portico. Similarly, ***vedi*** is in the middle of the sanctum-probably the site of cremation. Chakravarti calls this site as the form of *patriprasada* to serve as a site for *sradha* (reverence) ceremonies.[8]

The cenotaph of Bir Singh Dev is equated with the *panchaytana* temple plan.[9] Goetz sees strong influence of Hindu temple architecture over these cenotaphs.

Sanctum – Sanctorium:

The sanctum- sanctorium occupies a central and prominent place similar to that of temple. In temples the statues are installed there while in the cenotaphs the place is known as the *vedi* where either the ashes of the deceased were put or where the actual cremation was performed. In both cases the place was considered sacred particularly for family members. These auspicious places were visited by them to seek blessings and pay homage before or after completion of the ceremonies such as birth, *jatakarma*, marriage of children and proceeding or returning from war. On these occasions, especial gifts of sweets and cash were offered for distribution among the Brahmans and poor beside the routine worship. In Bundelkhand, particularly at Orchha the successors and the family organise *puja* on the occasion of the Dashera. This practice still in vogue.

Similar to temple there is *parikrama* invariably in almost all the *chhatris*. These covered passages were used to take round of the *vedi* or sanctum sanctorium in veneration. An art historian also supports it. In one point the sanctum is different. It is opened from all four sides but a temple has only one side opening generally in the front. The *shikhara* is the unique feature of the Bundela cenotaphs which puts them in the category of temple.

Domes :

The domes are said to have been a muslim innovation and were introduced by the Lodi and the Sur Sultans of Delhi, These replace the earlier Hindu stepped roofs. Various forms of domes were employed to decorate roof. The plain hemispheral dome is found on the cenotaph of Bharti Chand. Other kind of dome we encounter is onion shaped. This kind of dome is found in the cenotaphs of Bundela rulers at Orchha. This became popular form of dome in the seventeenth century. In fact these are double domes based on an octagonal neck. Third type of dome is called small dome kiosks or cenotaphs on four pillars. These were erected for two reasons: first, it represents *chhatra*, a symbol of royalty and secondly, to beautify the structure. Fourth kind of dome, we find is a ribbed dome. This is in the *chhatris* of Sawant Singh, Kirpa Ram Gaur and Sawant Singh. The domes on the memorial structures of Kirpa Ram and Sawant Singh are on the octagonal base while that of last one is topped by sexadecagonal. This last structure contains four cenotaphs topped by bulbous dome on the *chhajja* on the first floor. Similarly, the second *chhajja* contains other type of dome. Thus we encounter varieties of domes in the memorial structures of the Bundela ruler

Arches:

The cenotaphs of Bundela rulers are decorated with varieties of arches. We encounter different arches in various stages of the buildings. The extant arches demonstrate the interest of the Bundela architects in adopting all kind of arch forms and styles prevalent in the building industry. They appear to have been open to every kind of style Hindu or Muslim or mixture of both. In fact they could be called experimentalist in the field of architecture. Their experiments could be witnessed in numerous memorial structures. They employed various forms of arches in one cenotaph. This shows their sense of architectural beauty. We encounter the ogee arch in almost all the cenotaphs of the Bundela rulers at Orchha, Mau Sahania, Panna and Chanderi. In this arch two segments meet at the apex and make an end of *pipal* leaf is considered sacred in Hindu mythology therefore, there is a strong possibility that this auspicious design was adopted in the arches. In addition to this religious reason, another secular purpose was to employ the betel leaf as a decorative motif in the arch. In the three entrances in all four sides of the *chhatri* of the first floor of Bir Singh Dev we witness this type of arch.

The pointed arch too was employed in the memorial structures, we encounter the pointed arch in the cenotaphs of Bharti Chand, Madhukar Shah, Bir Singh Dev, Kripa Ram Gaur and four structures in the enclosure. In the funeral monument of Bharti Chand all the entrances including the chambers of the first floor have pointed arches. In this structure this arch is exclusively employed. In Madhukar Shah's resting-place, this type of arch is selectively used while the memorial of Bir Singh Dev contains numerous such types. The niches around the main arch are decorated with pointed arch.

The entrance of the outer compound of group of cenotaphs has pointed arch. This stylish arch is squarely employed in almost all the cenotaphs in the compound.

The cusped or multifoliated arches are beautiful in appearance. We encounter this stylish arch in the funeral – memorial of Madhukar Shah. As we enter in the monument we see the cusped arch in the entrance gate. Then we find this false arch around the statue of Madhukar Shah and his queen.

This is claimed that this kind of arch was introduced after the accession of Bir Singh Dev in 1605 which does not appear correct. The multifoliated arch first we encounter in the Rai Praveen Palace or *Aanand Mandal.*

We also encounter semi-circular or round shaped arches in the cenotaphs. In this arch two segments meet at the upper part to form a convex curvature. This type of arch we witness in the *chhatri* of Madhukar Shah and four in the compound.

The study of extant arches in the memorial- structures of the Bundela rulers shows the interest of the Bundela architects in employment of various kinds of arches in the entrances, windows and niches. They were also used in blind niches for decoration purpose. They were also fashioned in sculptures and the squinches.

Pillars:

The use of pillars in the cenotaphs of the Bundela rulers is not as prominent as in the case of resting – places of the Rajput rulers of Rajasthan. The latter structures were not enclosed like the former. The memorials of Rajput contain four, eight, sixteen or sometimes more on which domes rested. They were of various designs and patterns. Some pillars were quadrangular in lower part but octagonal in upper section.

This four pillared *chhatri* was considered as the simple type of funeral-memorial which remained in fashion in the fifteenth and sixteenth centuries in the Rathor state of Bikaner. The change in the pattern and style could be seen in the cenotaphs of Raja Karan Singh (died 1675) and Maharaja Anup Singh (died 1698). These canopies rest on sixteen pillars supporting a high central dome, four small corner domes, and four dome like oblong vaults. Besides, it bears the weight of a surrounding pentroof (*chhajja*) and battlement friaze.[13] The pillars of the cenotaph of Raja Karan Singh is unique. They are quadrangular in lower, octagonal in middle and sexadecagonal shaft in upper part.[14] The canopy of Sawai Jai Singh of Amber rests on twelve pillars.[15]

No cenotaphs of Bundela rulers was exclusively rests on the pillars. It was squarely used in the *chhatris*. We encounter only in three building namely Madhukar Shah, Bir Singh Dev, and Sawant Singh. Octagonal pillar with the same size leaf work base and capital is found in the *chhatri* of Madhukar Shah. In the same monument the circular pillar with octagonal rings and rectangular base on upper shaft supporting an arch is used in the projected balcony on the first floor. The former kind of pillars are found in almost all the entrances. All the pillars are in red sand stone.

In the *chhatri* of Bir Singh Dev we come across an octagonal cylindrical pillar with rectangular lotus engraved base. It is made of red sand stone.

In the upper part of the memorial structures of Sawant Singh four kiosks in all the four directions are standing on four square pillars topped by domes with projected pentroof (*chhajja*) of red sand stone. These are made of lime mortar and rubbles.

Roof and Ceiling Paintings:

The roofs of the *chhatris* of Orchha are flat but at other places such Mau Sahania, Panna, Datia and Chanderi we come across other types of roofs too. Prominent among them are semi – circular roof and the *bangla* roof. The former kind is used on the portal, gateways, doors and *jharokhas.* In local parlance *palkia* or *palki* (palanquine) roof. Thus we encounter in the memorial structures of Rani Kamlapa, Two crocodiles on both ends of *palki* carrying are shown. In Maharaja Chhatrasal's *chhatri* though this kind of design is not employed in roof but it was used in numerous numbers around the dome over the sanctum.[17]

This kind of roof we encounter in the *chhatris* of at Panna. The palanquin or *Palkia* or *palki* with over it symbolises *chhatra*, a symbol of royalty. The basic difference between the design of this *palki* over the palaces and that of the memorial structures is that is the latter buildings the *chhatra* type design is removed because it could be used only by the living rulers not by the deceased.

Other type of *bangla* roof is extremely scarce. This roof has slants or slopes on the two sides. Above types of roofs were employed to beautify the structures.

Pentroof and Brackets :

The architectural beauty dictated use of slanting pentroofs and brackets[18] not the climate as suggests by scholars. The climate may be one of the reason. The former factor is dominant, hence the *chhajjas* and brackets were heavily used in the *chhatris* of Rajput rulers of Rajasthan.

Squinches:

Squinches are used in the cenotaphs of the developed phase or form is concerned, We find first, square secondly octagon and at last mostly circular shape which help to making the shape of the domed roof.

References

1. The practice of making memorials for the deceased was prevalent in the Islamic world see, Godfrey Goodwin, 'Gardens of the Dead in Ottoman Time', in Muqarnas – An Annual on Islamic Art and Architecture, ed. Olea Grabar, Vol. 5, Leiden, 1988, pp. 61-69. There is a debate among the art historians about the origin of the cenotaph building among the Rajputs. Fergusson holds the view that the practice of building memorials was borrowed from the Muhammadans. Havell expresses opposite view and says the custom of making *chhatris* was of more greater antiquity among Rajputs (cf. Havel, op.cit., p. 61). Similarly, Hermana Goetz writes that "Its (*chhatri*) origin's must probably be sought in the wooden sheds which the primitive tribes of Rajputana and Central India, the Bhils, Minas, Meos, etc. used to erect over the memorial tablets and posts to their dead". Cf. *The Art and Architecture of Bikaner State*, Oxford, 1950, p. 64.

2. Goetz, op.cit., p. 64; Anand K. Coomaraswami, *History of Indian and Indonesian Art*, New York, 1965, p. 122.

3. Datia became an independent state during the time of Maharaja Bir Singh Dev Bundela. The place was given to Bhagwan Das by his father himself. Since then it emerged as a separate state. Therefore, the structures of memorials are found there.

4. Panna emerged as a new state under Chhatarsal Bundela. He was the son of Champat Rai who had no equation with the ruler of Orchha. Therefore, a new territory was carved out by Chhatarsal. He first established his capital at Mau Sahaniya where we find a memorial of his wife. There are numerous *chhatris* of the Bundela rulers at Panna which are magnificent from the architecture point of view. Cf. Naresh Kumar Pathak, "*Panna Ka Puratatvik Evam Pauranik Vaibhav*" in *Vaichariki*, Part 27, No. 3, May-June 2011, pp. 100-01;Salim Zaweed, Salient Features of Bundela Architecture at Orchha, *proceeding of Indian History Congress, 2009*; Safiya Khan, Cenotaphs of Orchha, *Nucleus*, Jaipur (Rajasthan), 2011-12.

5. Tikamgarh became the capital in place of Orchha in 1760's. Therefore, the *chhatris* of later rulers were erected there.

6. Goetz, op.cit., p. 65.

7. K.K. Chakravarti, op.cit., p. 153.

8. Ibid.

9. K.K. Chakravarti, op.cit., p. 153.

10. Goetz, op.cit., p. 64.

11. M. Salim Zawed.

12. Goetz, op.cit., p. 65.

13. Ibid.

14. Ibid.

15. NeelimaVashishtha, op.cit., p. 131.

16. This cenotaph was built in memory of Maharaja Chhatrasal's first queen Rani Kamplapati (Rani Dev Kunwar). This cenotaphs is decorated with beautiful paintings which are made up of fresco technique. The domes are decorated with inverted lotus.

17. This cenotaph was erected by Baji Rao Peshwa I in the memory of Maharaja Chhatrasal in A.D. 1736. Though he expired on 19th December 1731. This is an example of Bundela architecture.

18. The examples of *chhaja* and brackets are innumerably found in almost all kinds of buildings including the *chhatris*. These were heavily used in the memorial structures of the Desert state such as Bikaner, Jodhpur and Jaisalmer of Goetz, op.cit., pp. 64-70. For Jaipur see, Neelima Vashistha, op.cit., pp. 129-37.

CHAPTER - 7

BRIDGES

BRIDGES

Orchha got prominence in history as soon as it was chosen as a site for the capital by the Bundela Chief Raja Rudra Pratap.[1] He founded the new capital in April 29, 1531 on the bank of the River Betwa at a beautiful location in the Tungaranya forest.[2] It was put under the command of his elder son Bharti Chand who incidently died while on the hunting expedition near his earlier capital Garhkundar.

The wisdom for the selection of the site for the new royal seat gets appreciation from Percy Brown who writes that the Raja 'selected a site for his capital seat in a position which, for such a purpose is unequalled in Central India'.[3] Location of the town on the left bank of Betwa River obviously had an added advantage from the defence point of view besides its natural charm. It is at a distance of 13 km from the district Pirthvipur *tahsil* headquarters of Tikamgarh (M.P.)[4] and 15 km south-east of Jhansi (U.P.)[5]

The establishment of the new capital marks the beginning of buildings construction activities under Raja RudraPratap but his sudden demise put a temporary break but the work was carried on under his successor Raja Bharti Chand. The credit for the construction of the citadel or the palace fort goes to the latter. The fort was erected on an island rock created by River Betwa. Therefore, necessitating the construction of a passageway or a bridge over the River to approach the main entrance.[6] An attempt has been made in this paper to present a profile of this bridge as well as two other structures which we chanced to discover built one on the above river and while the second on the River Jamni. We would try to give their profile andanalyse the technical aspects of these structures. Our study is primarily based on the field work[7] (location of sites).

The need of bridges arose when rivers and streams prevented movement of the marching armies or movements of the royal entourage or to approach forts and palaces built on islands created by rivers. There is a possibility that some bridges were built on rivers or streams to develop state highways for the use of trading caravans or pedestrians.

Terah-Dwari Bridge:

The study of Deloche on bridges makes available a catalogue of causeways (*pul*) erected on rivers, rivulets, streams or any waterbody.[8] His study is heavily based on the physical survey of the extant structures in addition to written documents and European travelogues. He mentions only one bridge over the River Betwa while he escapes one bridge over the same river and other over the Jamni river.

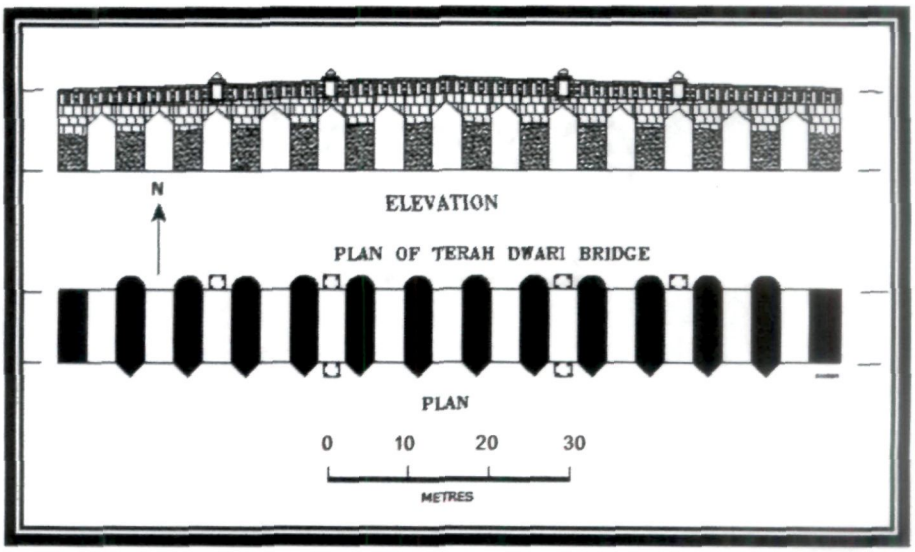
Bridge Connecting the Jahangir Mahal (Plate No. 7.1)

All the three bridges found in and around Orchha are of stone. The bridge on Betwa river connecting the Jahangiri Mahal or citadel (Plate No. 7.1) is said to have erected by Bir Singh Dev (1605-27).[9] All the authors mention the structure with 14 arches[10] while it is popularly known as the *Terah Dwari* (See Plate No. 7.2) among people of the area. This is also confirmed by our survey. There is a possibility that either one arch on one corner is blocked by dumping of wastage or arch of that side was false or for the name sake.

The bridge over the Betwa river at Orchha in Madhya Pradesh, built by the Bundela chief Bir Singh Dev in the first quarter of the 17th century, survives till date in its original form. Connecting the fort with the city of Orchha, the 105 meter long and 9 meter wide bridge comprises 14 arches of 3.70 meter span on both sides which rest on 3.50 meter wide piers.[11] The piers are designed in the form of buttressed support upto the parapet level which provide reinforcement to the structure as well as

regulate the flow of water in the inundated river. The entire rubble built structure is covered with a thick layer of lime plaster. It is interesting to note that there is parity between pier width and width of the arch span i.e., opening.

Butresses and Sluices of Bridge (Plate no. 7.2)



Another important point is different height at centre and both the ends. The height of the centre is 10mts while it decreases slightly on both the ends. This point is also noticed by Deloche.[12]

Rising above these buttressed piers, there runs a thick parapet perforated with arched openings on both sides of the bridge. The arched openings are enclosed with in rectangular recessed frames facing both the river side as well as towards the road. The openings on the road side are larger than those facing the river as they are covered upto the middle of their height leaving a small opening towards the river, perhaps to avoid any mishappening occurring to the travellers and passers by taking shelter under the deep arched recesses on the road side.

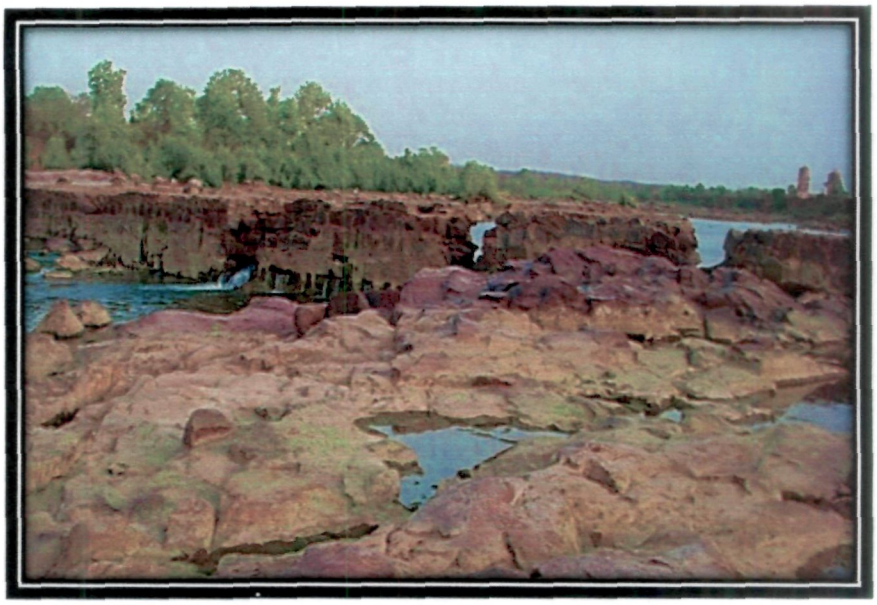
The buttressed piers on both sides of the bridge appear to have originally pillared square kiosks (*chhatris)* at intervals,(Plate no.7.1) only a few of which survive today. Apparently to break the skyline these ornamental *chhatris* were designed in the same fashion as those found on the top of the Orchha fort. These *chhatris* comprise four stone carved pillars resting above the buttresses on stone platforms and roofed by small domes which are built on octagonal drums resting on square bases. A stone *chhajja* also projects on all the four sides above the pillars. This *chhajja* on the roadside rises a little over the parapet and seems to be resting on it.

Foot Bridge of Betwa River:

There is an another structure on the Betwa river (presently located behind the Bundelkhand Resort). Though this can not bė called a proper bridge but in the form it looks as such. In fact an embankment wall with arches between two islands was constructed covering a major part of an open space. This barrier wall approximately of 2 mts in width and five to seven meters in height. It contains five arches but now in dilapidated condition (See plate no. 7.3 and 7.4)

The purpose behind the construction of this wall appears two folds: one to divert the flow of water and two, to regulate the water. The miniature from of bridge in fact functions as the aqueduct. It was also used as pathway to go other side of bridge where probably there was a garden. There is a short possibility that this diversion wall in the form of bridge was erected to use it as a pathway to approach garden easily and for irrigating this fruit producing compound.

Pathway on Foot Bridge in the River (Plate No. 7.3)



Sluces of Bridge (Plate No. 7.4)

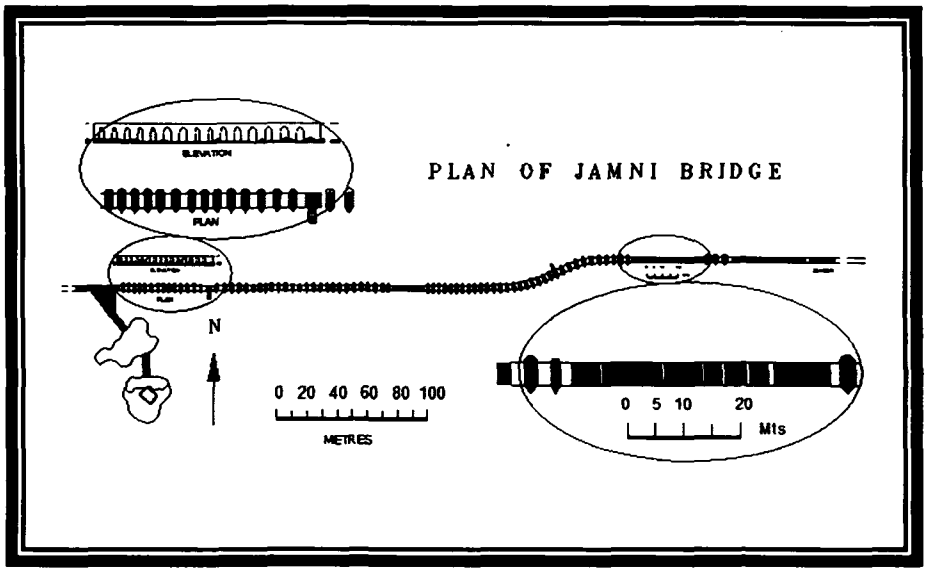
Jamni Bridge (Prithvipur):

Third bridge is located on the Jamni river, an important tributary of the Betwa. It is on the Orchha – Prithvipur road (see map below). It is hard to ascertain the date[13] of its construction in the absence of documents. It is laid on firm, rocky bed. The bed of the Jamni river is rocky throughout. The structure consists of two part separated by a solid wall. It is not high in elevation but quite a long bridge.

It consists of a long line of arches and piers. It runs west-east. Since the bridge consists of two parts: west and east side. The former part contains 42 pillars measures 2.50 mts each. The opening is of the same size. The latter portion consists of 36 pillars of 2mts. and the opening is of the same size. Thus the total length comes to 177 mts but the actual length measures 384 mts If we deduce the worked out length from the actual length, obtained by measurement, would come to 207 mts This means that two parts were joined by erecting a solid wall of above length (See Plate No. 7.5).

Long Pathway on Jamni Bridge (Plate No. 7.5)

Buttresses of Jamni Bridge (Plate No. 7.6)



The study of above three bridges show the interest of the Bundela rulers in the construction of the causeways both for royal as well as trading caravanas and ordinary people. The important point that emerges from above study is the technical proficiency in the bridge construction achieved by the civil engineers is proved by surviving two bridges i.e. Terah Dwari and Jamni bridge since more than three centuries. In addition to thee, three more bridges are also found which need detailed investigation. We would continue our efforts to find more such structures. But one can presume that large number of bridges were erected by the Bundela rulers.

Incidently we discovered three more bridges: first in Orchha itself second, in the garden of the Datia Palace and the third, in the Kalinjar Fort. All the three are small in size but contain all the qualities of a proper bridge.

The bridge in Orchha is built on a stream, connected with betwa, therefore known as the Ghurai bridge. It is located near the cenotaphs. We have documented in the form of photograph (Plate No. 7.9). Second bridge is located in the garden of the palace of Datia made of bricks. It divides garden into two parts and passage over it is provided for going to other side (Plate No. 7.8). Third a stone bridge we focused in the fort of Kalinjar. It is in the form of a inlet. Rain water enters through it in a tank. There is a passage over it to approach the palace (See Plate No. 7.10).

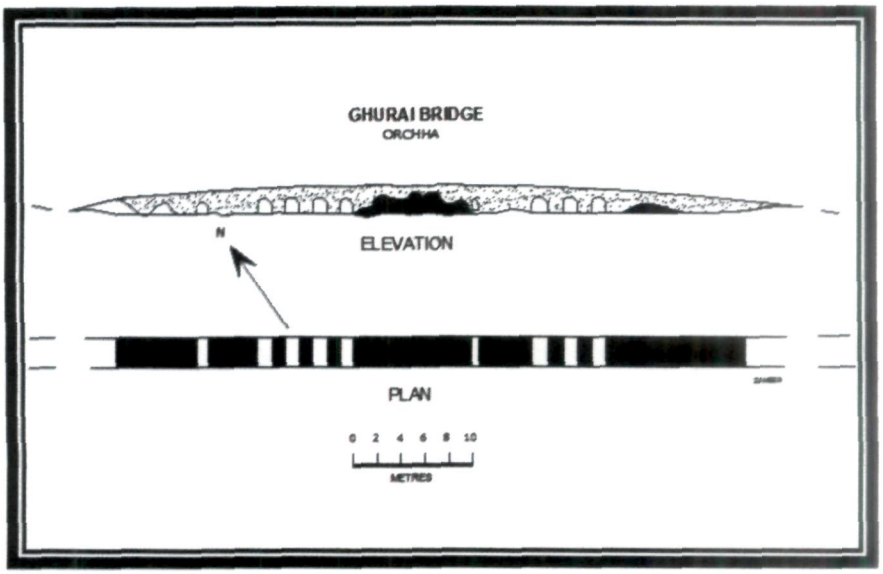
Bridge in Datia Palace :

Bridge in Garden of Datia Palace (Plate No.7.8)

Ghurai Bridge :

Pathway on Ghurai Bridge and Suices (Plate No. 7.9)

Breath of Path way of bridge is 2.50 metre, Length of Ghurai bridge 53 metre and all opening spans are different in size. Total openings are in nine number of bridge.



Inlet Bridge (Kalinjar): It is located near palace of Aman Singh. Three opening bridge, Approximately, the Length of bridge is 6.0 metre.

Three Openings in Inlet Bridge (Plate No.7.10)

The rulers took keen interest in the promotion of trade and commerce in their respective areas because it multiplied their treasure. They took such measures which could provide help to traders. Therefore, they built *sarais* (rest houses) post stations, wells, *baolis,* tanks and bridges. Similarly, the Bundela Chief Bir Singh Bundela constructed bridges for the caravan trade on the River Jamni. It appears that he and his successors built such buildings to promote trade and commerce.

References

1. It is surprising that though the place was chosen as the capital by the Bundela chief but it could not get the place in the Abul Fazal's the Ain-i Akbari, translated into English H.S. Jarrett, 2nd edition, corrected and annotated by Jadunath Sarkar, vol. II and III, Low Price Publications, Delhi, rpt. 2001, pp.198-99. It was neither mentioned in the *sarkar* of Erach nor in Payanwan (Powaya). But Irfan Habib has shown it separately between the *sarkars* Erach and Payanwan (Powaya) *suba* Agra cf. *An Atlas of the Mughal Empire*, Delhi Oxford University Press, Sheet 8A, Uttar Pradesh.
2. Percy Brown, *Indian Architecture* (Islamic Period), Mumbai: D.B. Taraporevala Sons & Co. PVT, Ltd., rpt., 1968, p. 120; Bhagwan Das Gupta, *Mughlon Ke Antargat Bundelkhand Ka Samajik, Aarthik Aur Sanskritik Itihas* (1531-1731), New Delhi: Hindi Book Center, 1997, p.9.
3. Percy Brown, op.cit.
4. *Gazetteer of India Madhya Pradesh District Gazetteers Tikamgarh* by N.P. Pandey, Directorate of Rajbhasha Evam Sanskriti, Madhya Pradesh, Bhopal, 1995, p.353.
5. It is some 15 miles from the cantonment city of Jhansi cf. Percy Brown, op.cit., p.120.
6. Percy Brown noticed this point cf.,op.cit.
7. Safiya Khan, Study of Bridges in Orchha,*Proceeding of Madhya Pradesh History Congres* 2011, Sagar (M.P.) 2011, pp.186-196, I am grateful to Mr.

Zameer Ahmad Khan who very kindly prepared the drawings of the *Terah Dwari* and the Jamni bridges.

8. Jean Deloche, gives a list of bridges. He records this Orchha bridge under the heading Arch bridges cf. *The Ancient Bridges of India*, New Delhi: Sitaram Bhartiya Institute of Scientific Research, 1984, 42.

9. Ibid.

10. Ibid., Bhagwan Das Gupta, op.cit., p.132.

11. There is a slight difference between the measurement recorded by Deloche. He records figures as follows: It is 100m long and 8.90m broad with arches of 3.35m span resting on piers of 3.75m (cf. ibid., p.42).

12. Deloche, op.cit., p.14.

13. I am extremely grateful to Shri Hari Vishnu Awasthi of Tikamgarh who very kindly provided me information about the foundation stone of the bridge which was named as the Shri Nand Kunvari Bridge. The foundation was laid down on 12th October 1931 (Cf. Administration Report of Orchha State 1931-32 by Bindeshwari Prasad Pandey Dewan, p. 7). But still I am confirm on my assertion that originally thus bridge was built in early period because the Mughal emperor Shah Jahan and other travellers crossed over this bridge. Therefore, there is a strong possibility that either a portion was renovated or reconstructed in 1931 and assigned a new name.

CHAPTER - 8

DAMS

DAMS

The tradition of conservation, storage and harvesting of water is as ancient as human civilization. The interest in the water harvesting appears to have been developed seeing heavy rains and no proper utilization of rain water and contrary to this shortage of water during rain deficit times. A small portion of it was collected in low lying areas of the surface and the major portion was flowed down and merged into rivers or formed seasonal channels. After sometime thus collected water was percolated underground and some part was dried in summer. Thus people could not utilize rain water for round the year gifted by the nature. But the nature taught them two lessons: collection of water in low lying areas and the percolation of water beneath the surface which formed a seat of underground water. With this nature's lesson the people gradually appears to have developed methods of water conservation. Thus knowledge in the field of water management was developed in all civilizations including India. A wide variety of engineering and water related systems were developed at different geographical locations over different periods.

Examples of conservation of rainwater are replete in ancient times. During the circa 3rd to 2nd millennia BC period the Urban sites of the Harappan civilization demonstrated a high degree of hydraulic engineering skills. One of the best examples of this is the 'Great Bath' at the site of Mohanjodaro. This has a pool or tank within a large building complex. Water for filling the pool of the 'Great Bath' came from a large well situated in one of the rooms fronting the open courtyard of the building complex, while a corbelled baked brick dam in the south-western portion of the Bath served to carry away the used water.[1]

The 'dock-yard' found in the excavation at another well known Harappan culture site namely, Lothal, is also worthy of especial note. This remarkable lined structure, with evidence of channels for inlet and outlet of water, is a pointer to the hydraulic knowledge of protohistoric India. For discharge of extra water, a sizeable spill-channel was built in the southern wall of the 'dock'.[2]

Similarly the excavation at the Harappan site of Dholavira (Gujrat) also indicates a complex system for collecting and storing rain-water within several reservoirs. Water management seems to have been an issue that the Harappans were actually aware off. This is reflected in the occurrence of several rock-cut reservoirs or

cisterns. To fill these, the rain-water in the catchment areas of the site's two local seasonal rivulets (the Mandsar and the Manhar) was collected and brought to the reservoirs. The excavators of the Dholavira claim that at least 16 water reservoirs were created within the city walls.[3] In this manner every effort was made to preserve rain-water in an area where there is no perennial source of surface water and ground water is largely brackish.

The evidence of private and public wells is coming from various sites of the Harappa. The former kind of wells, owned by individuals were serving residential units. Public wells appear to have been utilized for irrigating agricultural fields.[4]

The decline of the Harappan centres marked a temporary eclipse in large scale hydraulic works. The excavation at Inamgaon (Maharashtra) have found evidence of a stone-rubble and mud embankment and channel which suggests that during the C.1400-1000 BC period artificial irrigation probably facilitated agriculture at this site.[5]

The early historical period witnessed development of hydraulic techniques and technologies. Literary references and archaeological data from about C.6th century B.C. onwards indicate the development of embankment, canals and other hydraulic works.

The rulers of Nanda dynasty built irrigation canals to carry water from river to agricultural tracts. The Mauryan rulers built many more irrigation works to facilitate agriculture. Kautilya's Arthshastra records about irrigation and water harvesting systems of this period.[6] The book indicates that people know about rainfall regimes, soil types and irrigation techniques.

A series of tanks are found in the excavation of the Sringaverapura, near Allahabad belonged to the end of the 1st century B.C.[7] The tank complex of this place obtained water from the nearby river Ganga during the mansoon season.[8] Above examples show that the hydraulic knowledge and skills known in early South Asian History.

One of the earliest artificial lakes from ancient India the 'Sudarshan' lake in Gujrat's Girnar area was constructed by the Mauryan emperors. It was excavated during the reign of Chandragupta by one of his officer named Pushyagupta. Then alteration and repair works were carried out in ensuing centuries by ruling classes.[9] An inscription of A.D. 455 records that when the embankment dam at Girnar broke, it was

rebuilt in A.D. 455 by the local city governor, a man named Chakrapalita, son of emperor Skand Gupta's provincial Governor ParamDatta.[10] Later it was destroyed sometime in the 9th century A.D. and was never repaired again.

Construction of Waterbodies in Early Medieval Times:

It is established that there was a strong tradition of construction of waterbodies in ancient India. Thus the knowledge of construction techniques passed through generation to generation. Medieval architects and hydraulic engineers had benefit of established knowledge system in the field of water harvesting.

The tradition of creating large lakes may be noticed in every part of India. The largest known artificial lake of India was created in the middle of the 11th century by king Bhoj Parmar (the ruler of Dhar) at Bhojpur near Bhopal by raising a vast embankment across two hills. The lake apparently received water from as many as 365 streams and springs. Though the lake has vanished, following the breaching of its embankment in A.D. 1434, its traces indicate that the lake originally covered no less than 250 square miles or over 65000 hectares.[11]Numerous other examples of artificially fabricated lakes are known from different parts of India. Though there is no list of waterbodies but it has been estimated that, over time, there have existed nearly 1.3 million human made lakes.

The extant waterbodies of Rajasthan such as Ana Sagar at Ajmer (12th century),[12] the Ghadisar[13] reservoir at Jaisalmer (A.D. 1367), Pichhola at Udaipur,[14] Indra Sarovar at Eklingji,[15] Udai Sagar,[16] Raj Samand (A.D. 1661 to 1666 A.D.)[17]and Jai Samand,[18] demonstrate the level of consciousness of the people and rulers for conserving and harvesting rain water in their respective states.

The inscriptions, literary sources and the archaeological data (based on the field work) emphasize India's rich, technological excellent and varied hydraulic tradition. This is confirmed from the extant waterbodies in different geographical areas. This entailed a range of effective rainwater harvesting, collection, storage and management strategies which developed, evolved and thrived in India over the centuries. A example of a complex network of irrigation and water management systems created by the Gond rulers of Central India is to witness to the development of hydraulic system.[19]

Development of Hydraulic System in Bundelkhand:

The geography of Bundelkhand had played a pivotal role in shaping the kind of waterbodies could be developed. Low ground water resources against the hard rocks like gneiss and granite has made it a drought prone area. The region being a hilly, rocky with a steep land gradient, rainwater flows very quickly and very little is percolated underground. In addition to it, the area is poor in rainfall. It receives only 80 cm. rainfall annually.

The rulers of this region and the people were well aware of these problems. Therefore, they made efforts to face the nature's challenge.

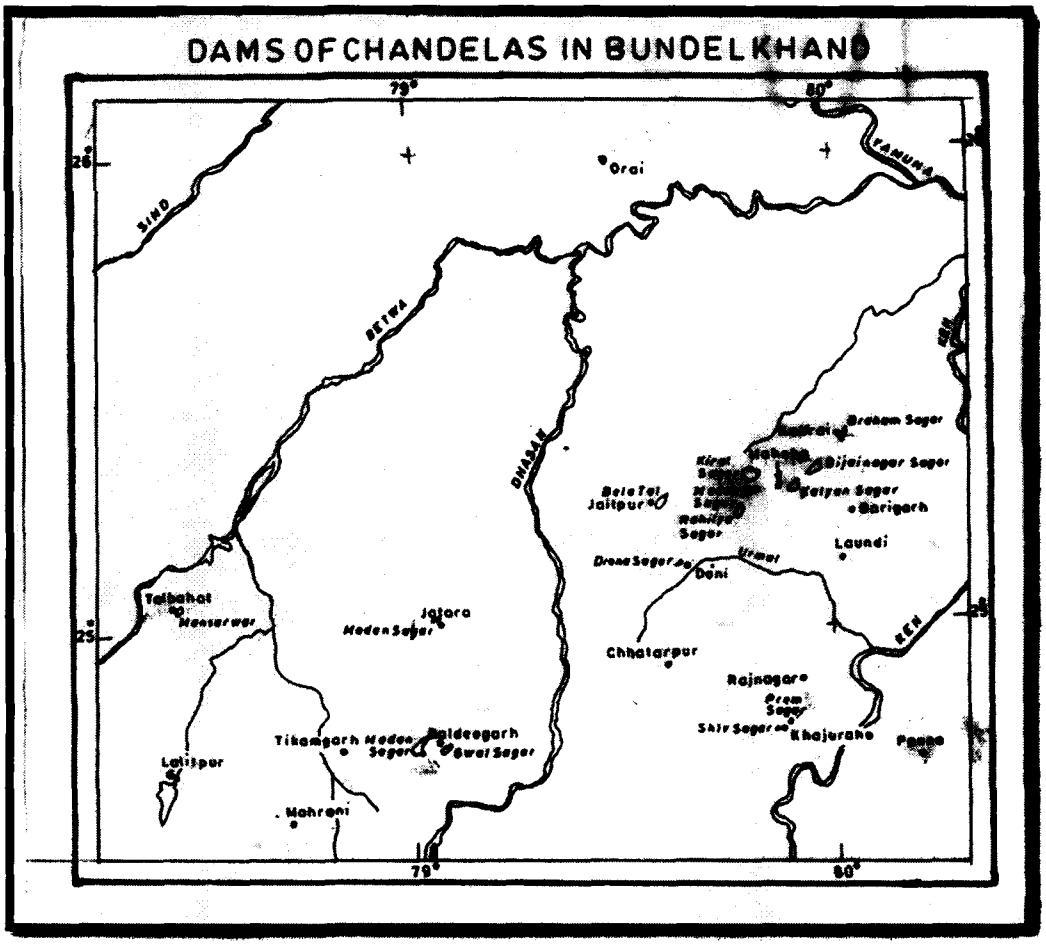
The region was ruled by the Chandelas and the Bundelas, who took keen interest in the development of the water harvesting system. Therefore, the period from 9th century to the 17th century assumes significance from the point of view of the development of water harvesting system in the region. The Chandellas ruled over the region from A.D. 831 to A.D. 1545. They developed a network of water harvesting structures in their territory. During their regime innumerable magnificent waterbodies came into existence.[20]

In this chapter we would concentrate only on the dams constructed during the times of the Chandelas. There are two separate water bodies, dams and tanks. Generally scholars do not differentiate between these water structures but instead count them as one and the same.

In fact these are two separate bodies. Separate terms were employed for these bodies in contemporary documents, *Sagar* and *Samudra* or *samand* (lake) for the former while *tadag* and *talab* for the latter. Dams were generally built by erecting an embankment wall between two hills facing each other. In fact, in this waterbody the gorge or passage between the two hills was blocked and water comes from all directions which was stopped by raising the wall. While the term *talab* its combination of two words that is *tal* and *aab*. The former means a depression in open space while the latter stands for water. The site was further excavated to make it more deep and an embankment wall was raised all around.

This was known as the *pal* which confines and preserves water. The space for the inlet was left open through which water comes and collected in the excavated site.

The chandelas built both dams and tanks. The waterbodies designated as the *Sagar* come in the category of the dams. During the time of the Chandelas we find innumerable such water monuments namely Kirat Sagar, Rahilya Sagar, Madan Sagar, Vijya Sagar and Kalyan Sagar.[21]



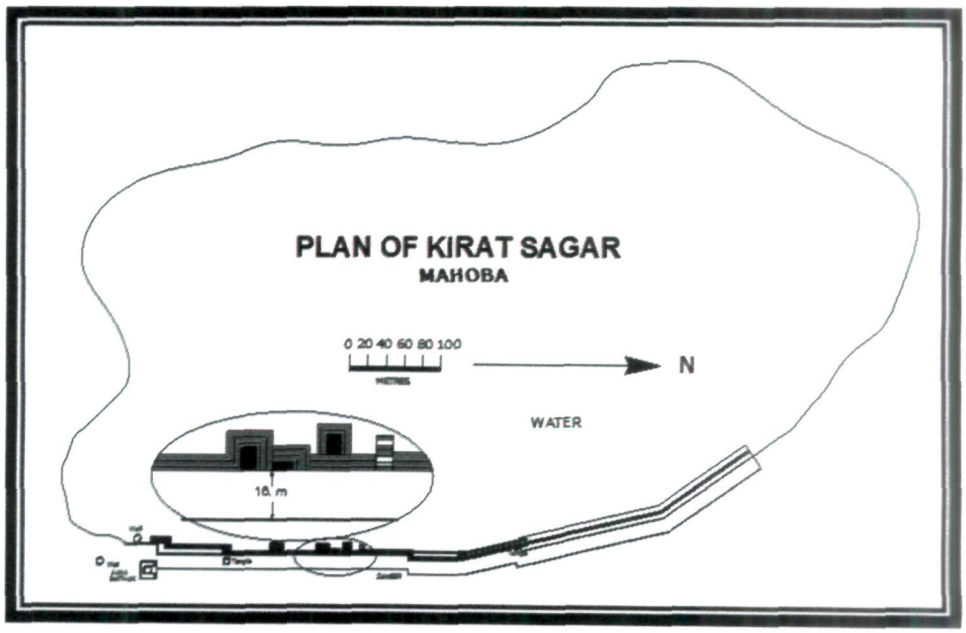
Kirat Sagar (Mahoba)

The engineers of the Chandelas appear to have acquired experience in the water harvesting system which is evident from the extant structures. They had built a dam blocking water of Chandnaur, a tributary of the river Chandrawali.[22]

The site selected by the hydraulic engineers shows their wisdom. The source of water was located in the hills all around and used to flow towards the east. Here at an appropriate site the flow of water was blocked by erecting an embankment wall.

The wall was made of mud mortar which can be called as the eastern embankment. The wall facing water was protected by the small pieces of stones. It would be more appropriate to say that these stones form a supporting wall for the embankment wall. These were arranged in the form of steps or flight of steps from bottom up to the upper corner of the wall.

Stairs of Kirat Sagar Dam (Plate No.8.1)



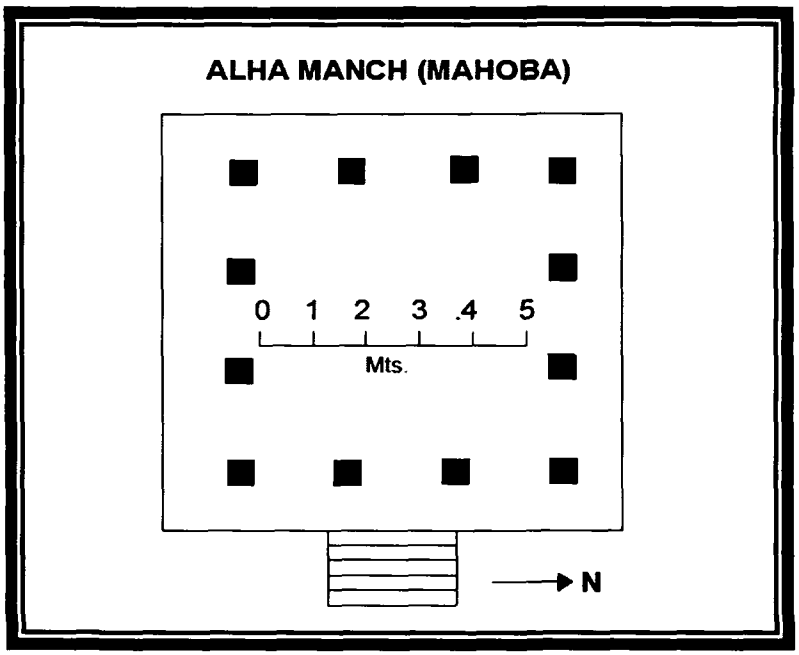
The dimensions of these stones are approximately 2 ft X 2 ft X 1 ft. The breadth of the embankment was always higher than the height. The height of the wall was always purposely kept low. The importance was always given to the breadth of the wall because it had to face to *brunt* of the flowing water.

Prior to the construction of this embankment wall, water was flowed down. Therefore it is not proper to say that it was a natural lake as postulated by Vinod Kumar Singh. In fact the flowing water took the form of a lake with the construction of embankment wall of granite stones and mud-mortar. We surveyed this structure and prepared following ground plan. The embankment wall runs north to south. Its length comes to 745 meters. To strengthen its main wall an another backwall was constructed 30 mts. away which is infact width of the dam. There is an open platform (*Baradari*) whose length is 20 mts. and breadth comes to 18 mts.

Baradari as Alha Baithak (Plate No. 8.2)

The barrier wall is not straight but has many turns. The projections are in the form of stairs which too are not in straight alignment. But have a sharp convex curvature into the tank somewhere in the middle of the embankment at which point, the breadth of the embankment increases. To put weight on the embankment two temples were raised. Besides this there are two wells in the southern side one,

Inside the lake adjacent to the embankment and other near the retaining wall. These wells appear to have been dug for irrigating surrounding fields.



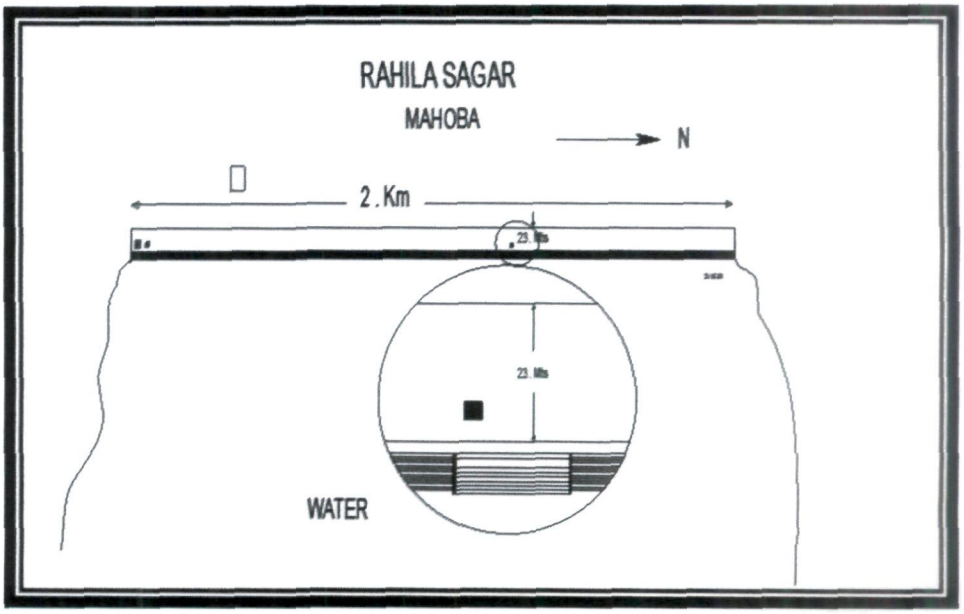
It appears that the lake was created to irrigate land in its vicinity. It is confirmed by the extant canal taken out from the outlet. At present a section of the canal is survived which is visible only upto 19 meters. This is also confirmed by the statement of Drake and Brockman recorded in 1909. He records that the water flowing into the canal irrigated 27 acres of land near the lake.

Rahilya Sagar (Mahoba):

The lake in the south west part of Mahoba, was constructed by RahilyaVarman (A.D. 890-910).[23] It appears that the hydraulic engineers had selected this site because the water from surrounding hills of the east was flowing down. At one point the flowing water was blocked by an embankment which runs north-south but not in straight line but has turns. At some point it took the shape of half moon.

The wall is about 2 kms. long and its breadth comes to 23 meters. It was made of mud-mortar. The wall facing force of water was protected by blocks of stones in the form of stairs. A *ghat* was built with stairs 12 in numbers. The breadth of each step is 0.50 cm. Small temples on both sides of the *ghats* were raised.

Rahila Sagar (Plate No. 8.3)



For the purpose of weight a huge temple on the dam was raised, dedicated to the sun. This was obviously built to put weight on the embankment to get rid of the danger of washing away the structure. This demonstrates the skill of the engineers.

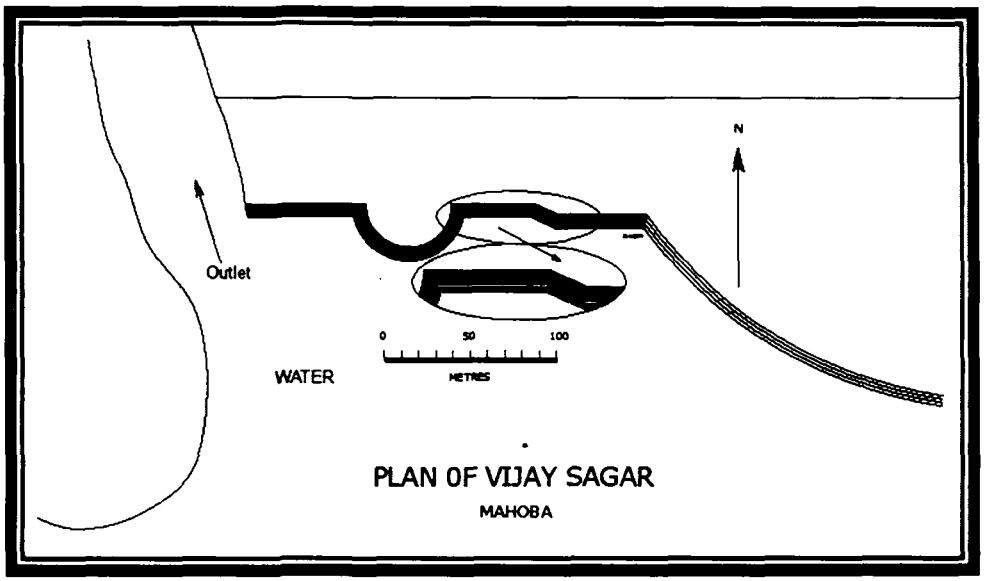
Sun Temple near Rahila Sagar (Plate No. 8.4)

Vijay Sagar (Mahoba):

This waterbody is located in the east of the town of Mahoba. It was constructed by the Chandela ruler Vijay Pal or Vijay Varman who ruled over the region between A.D. 1035-60.[24] Chaurasia draws the conclusion after examining the style of the stone slabs on the waterbody that it was formerly built by Gaharwala rulers. Later on it was completed by the Chandela ruler Vijay Varman.[25]

Vijay Sagar (Plate No. 8.5)

The detailed measurements of some parts of the structure are taken and a following ground plan is made. The length of embankment is 461 mts. its breadth is 33 mts. excluding retaining wall. The gap between two walls comes to 93 mts. which means the total breadth reaches to 93 mts. Stairs are added which are 16 in numbers. Each stair is of 0.50 cm. Thus the hydraulic engineers raised a structure which could face the violent thrust of the gushing water.

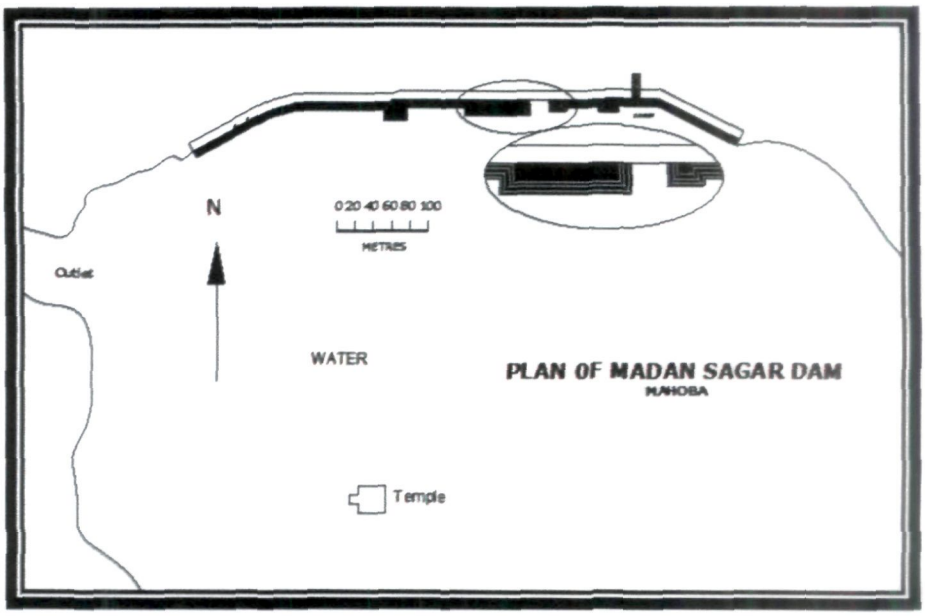


Madan Sagar (Mahoba):

The waterbody lies in the south of the Mahoba city which was built by the Chandel ruler MadanVarman between A.D. 1139-62.[26] It was built by impounding the flowing water of the river Makardhwaj. Sometimes the river was also styled as the river Magaria because of presence of large number of crocodiles. The deep part of the river was filled with mud upto the level of the hills and the north-south part was blocked by stone slabs. The embankment runs north-south. The source of water lies in the east. Its expanse is spreaded in about four square kilometers.

There are four islands in the middle of the lake which increase its beauty. On these isles temples and other monuments such as the pillared pavilion were erected to enhance its beauty. In front of temple two storyed pillared pavilion was built for sitting of *bhakts* (worshipers).

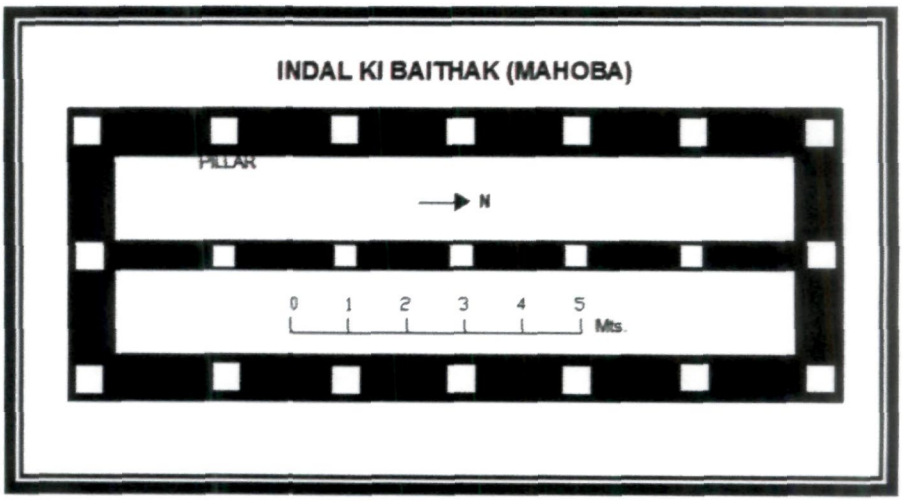
Madan Sagar Dam (Plate No. 8.6)



The embankment runs north-south. Its length measures 683 mts. while breadth comes to 73 mts.[27] The breadth includes embankment wall of 10mts which means that the retaining wall comes to 6 mts. The portion between the two walls was filled with mud mortar. The front part of the embankment has the stone facing in the form of stairs, projecting towards water.

The embankment wall has turns and on the north-south direction flights of stairs are added to reach the level of water. These are seven in numbers at one point. At some places stairs are in sections. A stone passage was built to reach the temple and open pavilion in the middle of the lake.

Indal Baithak (Plate No. 8.7)

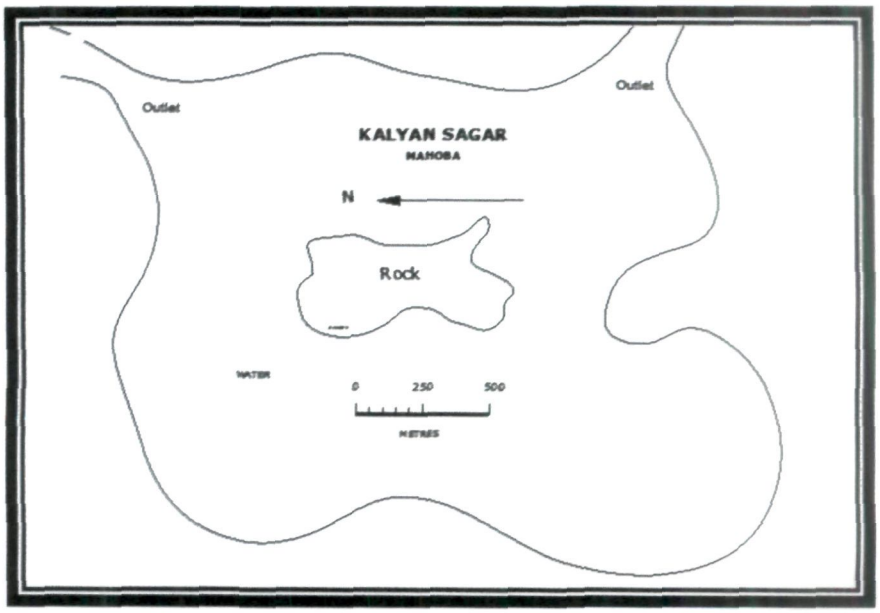


Kalyan Sagar (Mahoba):

Epigraphic evidence indicates that this lake was planned and constructed probably by the orders of queen Kalyan Devi.[28] But it is said that this lake was built by Vir Varman in the name of his wife Kalyan Devi.[29] It appears that it was a natural

depression and a shape of lake was given by erecting an embankment of granite stones and plaster of mud on the northern direction. It's expanse is about 1 km. by 1 km.

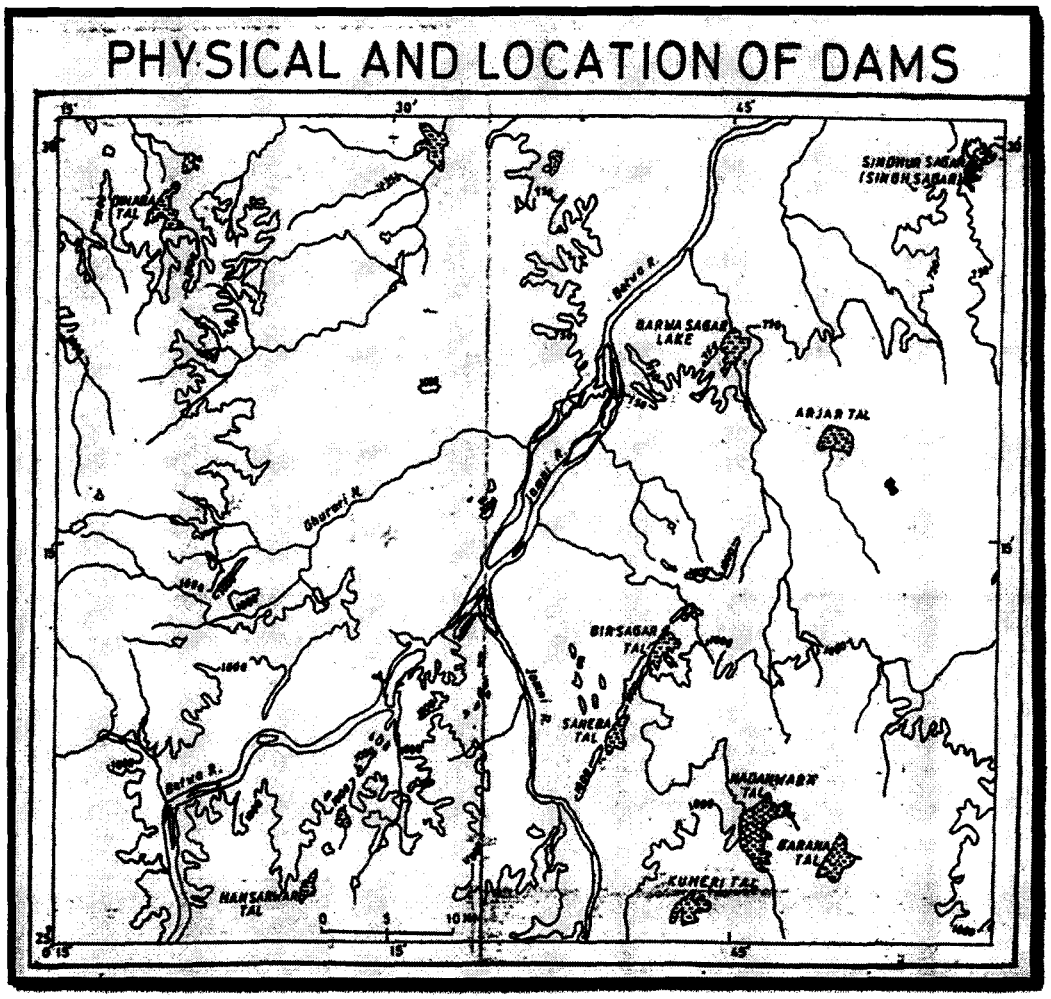
A View of Kalyan Sagar (Plate No. 8.8)



It is located in between Vijay Sagar and Madan Sagar. Therefore it serves as link between these two waterbodies.[30] The overflow of Vijay Sagar fills Kalyan Sagar and then excess water reaches Madan Sagar which is confirmed by the following map

Dam Construction under the Bundelas:

The construction of hydraulic works was continued under the Bundelas and large number of following dams came into existence during their times. There is a belief prevalent among people of Orchha that Bir Singh Dev built three dams after three parts of his name, that is, Bir Sagar signifies first part of his name, Singh Sagar indicates his middle part and Dev Sagar indicates his last name.



Bir Sagar (Prithvipur):

The site selected was in all probability in the *pargana* Orchha but now it falls in the Prithvipur belonged to district Tikamgarh. The location of site is between 25° 12' N and 78° 45' E. The site of the proposed dam was located 8 km. away from the state capital.

The efforts of hydraulic engineers and the civil engineers of Orchha got success in searching out an appropriate site for the construction of dam. They reported it to their master Bir Singh Dev who seemingly went alongwith his engineers to see the site. He was greatly impressed by the wisdom of his engineers and gave orders to start the construction work immediately.

Semi-Circular Shape of the Dam (Plate No. 8.9)

The dam stands within a narrow gorge formed by range of hills. There is an open possage encircled by hills of 1000 meters height. The rainy season sees the birth of numerous rivulets and *nallahs*. Overflow of the River Jamni's water travels towards an open wide space surrounded by hills with one opening in the north.

Here at this point an embankment wall was built between two hills to impound water of the Jamni and other rivulets originating from hills.

There are two parallel hills facing each other: one runs northeast while other from west to south. The embankment wall was erected to fill the space between two hills: one on the east whiles other in the south. To cover this gap a crescent shaped or semicircular wall was built which involves an advance skill. The size of semi-circular wall comes to 82 mts. and turns to meet the foot of hill. To buttress it, wall was projected towards tank in the form of platforms.

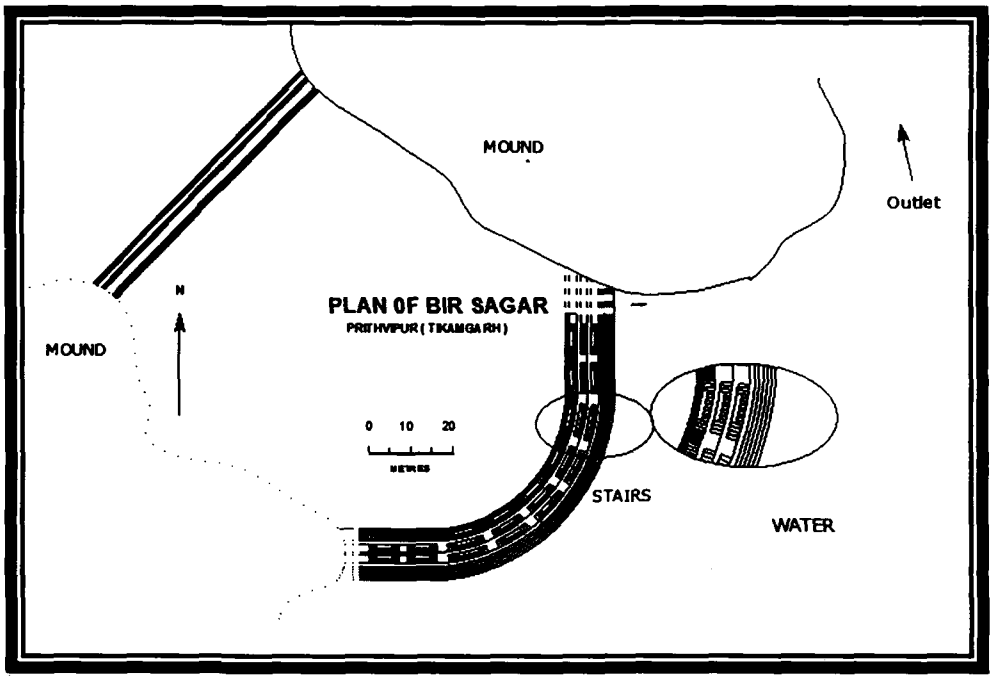
It is a two tier projection and size of both platform is harmonious. The total number of platforms are eight which cover entire length of the wall. The size of each platform measures 1.30 by 1.70 metres.

Retaining wall of the Bir Sagar Dam (Plate No. 8.10)

To approach from one platform to another lateral stairs were constructed. These are eight in numbers in one side which mean sixteen in both sides whose measurements come to 129.5 metres to face the brunt of gushing water which includes width of the embankment and the retaining wall. It appears that the engineers appear to have built a hill like barrier wall to contain water. Besides this, the shape of the semi-circular wall is obverse which faces water. This part faces the brunt of violent water and weaken it by diverting along the wall. It appears that the engineers had developed this shape on the experiment basis in which they got tremendous success. This typical shape appears to have put the civil engineers of the region ahead of other regions.

The length and breadth of a dam is an important component. Its length comes 82 mts. and the width measures 11.50 mts. Similar importance was given by the engineers to the retaining wall which can be called, 'safety and protective wall'. The hydraulic engineers did not want to leave any point which could prove dangerous for the structure.

Therefore, to give an additional strength to the embankment a retaining wall was raised, whose width measures 118 mts. The gap between two walls was filled with sandstone and lime-mortar. The width of the wall totals up 129.50 mts.



The outlet of the dam was in the east in the backside of hill. Water was conveyed through canal constructed for the purpose. The canal runs along the retaining wall. It seems that the main motive behind the construction of this waterbody was to irrigate vast agricultural fields of north east. Raising of underground water level in the surrounding area was subordinate aim.

Another important part of the structure is weight on the waterbody which is essential from its safety point of view. The requirement was fulfilled by raising a temple on its eastern corner. The temple is built of bricks and belongs to the Lord BihariJi, which still exists and contains a small garden.[31]

The waterbody gets appreciation from a contemporary poet Keshav. He employs two designation for the waterbody namely Bir Samudra and Bir Sagar. He states its three characteristics and benefits: one, raising of water able of surrounding areas two, flourishing of agricultural fields meaning by irrigation and last creating healthy environment.[32]

This waterbody along with others received appreciation from the court historian of Shah Jahan. Shah Jahan stayed there enroute to Deccan. His camp was pitched on the bank of the Bir Sagar lake. Its circumference was 5½ imperial *kos* means about 14 miles. This shows its vastness.[33]

A historian of distant place and the Diwan of the Rathore State ruled by Maharaja Jaswant Singh provides information about this magnificent lake Bir Samand. He confirms the stay of Shah Jahan on its bank. This demonstrates its natural beauty which attracted the mughal emperor. This waterbody was noticed by Bhimsen, a historian of Aurangzeb's time while praising Bir Singh Dev for his construction works. He writes that he built a building, named Jahangir Nagar (Jahangir Mahal) and a tank near by. Though he does not mention the name of the tank but in all probability it was Bir Sagar.[34]

Singh Sagar (Garhkundar):

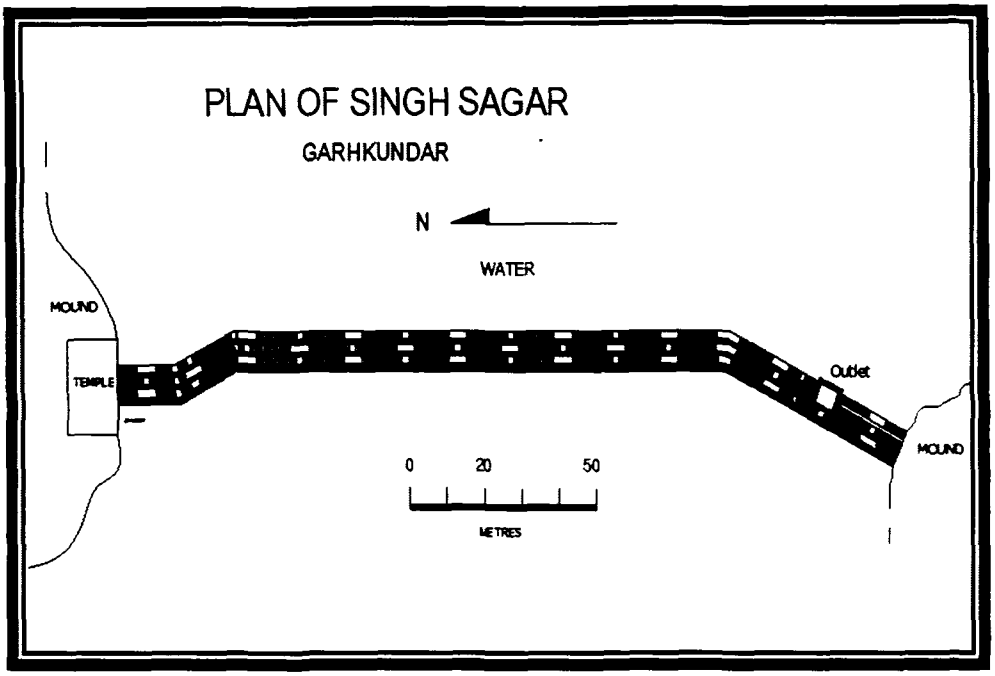
The waterbody named Singh Sagar is located in the vicinity of Garh Kundar, the former capital of the Bundelas. The place served as the headquarters of the state till 1531 thereafter it was shifted to Orchha. After assuming the power Bir Singh Dev thought to provide a glory to the old capital and therefore reconstructed the fort and a dams in its vicinity. The waterbody, constructed was known by two names: Singh Sagar and Sindhur Sagar. The designation shows its vastness in expanse.

Gridhwasni Temple near Singh Sagar (Plate No. 8.11)

The site selected for the dam shows the wisdom of the civil engineers of Bundelkhand. The depiction of the site of the lake on map shows a range of hills runs north-south. The hydraulic engineers found one side open between the two hills. (See Plate No. 8.12) The declivity of the vast plain of the foot hills of hills is a basin spreading in 8 to 10 square kilometers. Prior to the construction of this embankment wall, water used to flow down in surrounding areas near the fort. Therefore three motives seen to be in operation behind the construction of this dyke: one, protection of fort from the flooding, two and three raising of water table of surrounding area for the conservation of water for irrigation domestic purposes.

Another view of Singh Sagar Dam (Plate No. 8.12)

Though its major source lies in the east but water comes from three directions in great quantity and passes through a gorge between the two hills. On this spot an embankment wall was erected to impound water flow between the two hills located in the north and the south. The hills were not exactly opposite to each other therefore the embankment wall was adjusted accordingly. For this purpose turns were given to it. This barrier wall runs between the north-south. On the north corner a temple of goddess Gridhyawasini was built adjacent to the hill. Therefore, the northern wall joins this temple while the southern wall joins the hill. The northern side wall takes turns and then runs straight and then goes down to join hill. This typical and a bit complicated design shows the skill of the hydraulic engineers.



The physical survey of the structure shows its size. The length of the embankment wall is 112 mts. while its width is 9.5 mts. It is a three storyed structure. Major part is projected towards water. The size of the upper part projection is 4.90 by 1.80 mts. while the lower part measures 1.80 by 1.80 mts. Its outlet is in the south from where surplus water was drained. The outlet holes were cutout at different levels. The characteristic of this dam is that it has no retaining wall but has support of earth on the bottom of wall.

This water-structure appears to have been constructed on the site of the Chandela structure. This is evident from the stone blocks used which has the carvings of the Chandela period.

Dev Sarovar (Shivpuri):

The dam named Dev Sagar, located in the district Shivpuri was built by Bir Singh Dev. It became popular as the Surai Ghat in the area. There is a wide open field and water coming mainly from the south-west direction and passes through two hills located in the east and in the north-west. Prior to the construction of the embankment, water was flown and no proper use of it. The site fascinated the Bundela chief and consequently he instructed his hydraulic engineers to build a dam on this spot.

The location of the hills was found problematic because they were not in straight alignment. The construction of straight wall between two hills facing each other is an easy task for the architects. The wall gets support of hills to face the thrust of water. This kind of problem arises when the hills are not straight in alignment. But fortunately there was a small island or outcrop on the other side facing the hill. This proved an obvious solution to some extent. The architects, first erected straight wall starting from the northern hill and took a sharp turn from back of the island to join the south-east hill (see small hill in water infront of the embankment wall). In fact this small hill proved an additional strength to the wall. It faced the thrust of water and weakened it by diverting in other side. In fact it can be called as the 'protection armour or amulet' of the dam.

L-shaped Dev Sarovar (Plate No. 8.13)

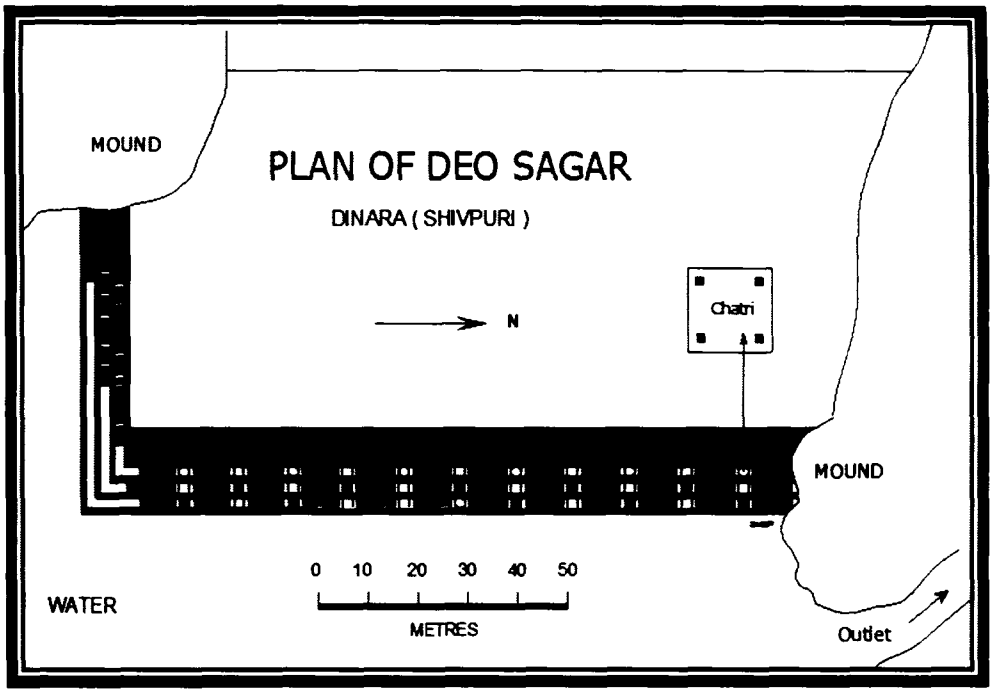
The embankment wall is 'L' shape (plate No. 8.13)whose length comes to 306 mts while the width is 33 mts. The thickness of the dyke is the most important element in the whole structure. On the basis of survey following ground plan is prepared. It is the part which faces force of water the most. So the engineers attached more importance to this section. Therefore, to safeguard this waterbody from the violent force of water it was considered necessary to keep the line of thrust within the middle third of the cross-section of the structure. This principle appears to have been applied in this section.

To give additional strength to the main embankment wall, two successive platforms were constructed projecting towards the water whose width in 33 mts. On the top floor of the dyke eight cenotaphs (*Chhatris*), were raised and one similar on the first floor. In addition, two open enclosures and a temple are erected. Thus the total twelve structures are there on the entire length of the dam. To reach from the ground to the top floor, two lateral flight of stairs in opposite direction were added. Sixteen stairs in each direction lead to the upper story. In all, forty eight steps in one and ninety-six in both the directions were constructed between the ground and the top platform. Uniformity in number of stairs and in size is maintained by the architects. (Plate No. 8.13)

Another view of Dev Sarovar (Plate No. 8.14)

This symmetry in platforms (*Ghats*) equipped with three-tier flight of stairs in both-sides and domes at regular intervals enhances its beauty. It gives a look of a flagon (*surahi*). The characteristics of this dam lies in its height. The embankment wall was kept very high keeping in mind the volume of water coming from an area spanning in six square kilometers. This dam is considered one of the finest work of all.

Another characteristics of this waterbody is the filling of the gap between the retaining wall and the main embankment which was 70.50 mts. Entire gap at the level of hills was filled with small crushed pieces of rubbles and probably mixed with lime mortar. This was really a hard task accomplished by the engineers.



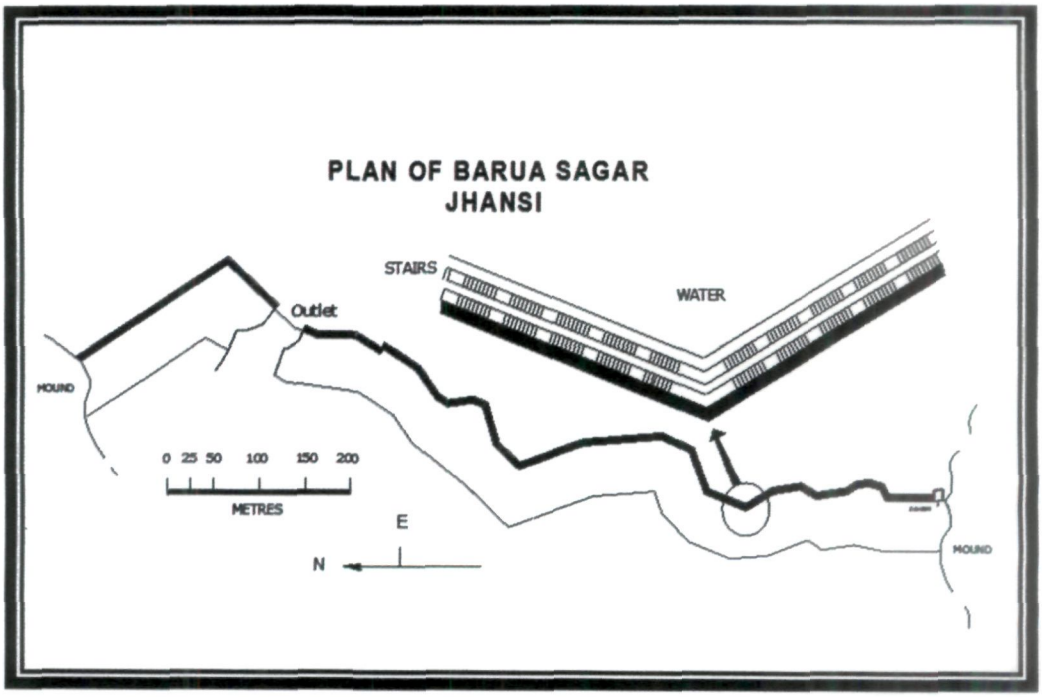
Thus additional buttress ensured not only the safety of the waterbody but the long life span for it. The waterbodyis not harmed even after almost four hundred years of its birth and would be continued to live more centuries.

Barua Sagar (Jhansi):

This lake is now located in the district Jhansi but formerly it was the part of the *pargana* Orchha. It is known by two names: Udot Sagar and Barwa Sagar. The former nomenclature is after the name of its builder Udot Singh, the ruler of Orchha. It is located on the Jhansi – Mauranipur road. (See Plate No. 8.15)

The lake or dam was formed by erecting an embankment across the Barwa, a nallah passing through two hills. It is made of stone, curving rows of steps leading down to the water. This is hugo dawn. Louis Rousselet praises about its natural beauty and vastness. He writes that "lake Barwa sagar is two miles long by one broad". Further, he writes that on the bund or dam, which keeps its water from flowing away is a half a mile long; it is about forty feet high, and from thirty to forty feet through".

Zig-Zag Shaped of Barua Sagar (Plate No. 8.15)



We have surveyed it and documented in the form of photographs and following ground plan is made:

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CHAPTER - 9

TANKS AND CHAUPRAS

TANKS AND CHAUPRAS

Rain Water Harvesting Structures

The rulers of Bundelkhand appears to have taken keen interest in the rain-water harvesting structures. Large number of extant structures are there to witness it. The construction of water- bodies assumed particular significance for rulers which would provide a sound and solid base to the economic state. It further necessitated because of geographical and topographical impediments. The region is enormously hilly and rocky with a steep land gradient hence water flows quickly and absorption is quite low. This situation is responsible for the deep water-table and low water resource in the region. The less rainfall further multiplied the problem on the water front. Keeping these difficulties in mind, the Chandela and the Bundela rulers took keen interest in the harvesting of rain-water.

Tanks were constructed in large numbers by the rulers of the Chandela and the Bundela dynasties. At least one tank exists in most of the villages gets confirmation from the inscriptions, gazetteers and the Archaeological survey reports. We also come across more than one tank in some of the villages built by rulers, nobles, traders, *banjaras* and the other individuals. Thus the rulers of both the ruling families developed an extensive network of reservoirs and tanks in their territory. References of these waterbodies are available in large numbers. Inscriptions and the literary sources mention the construction of waterbodies by Madan Varman (1128-1165), Parmardideva (1165-1203) Vir Varman (1245-1285) and others.

The contribution of these waterbodies in the field of water harvesting and conservation had been immense. They played role on two fronts: one, in raising watertable of the area through percolation of water and two, in raising water level of the surrounding wells. Therefore, the rulers, their wives, nobles, traders, *banjaras* and sometimes village community excavated tanks of varying sizes to tap rain water.

The historians and environmentalists of Bundelkhand do not make difference between dam and tank. They put both the structures under one heading tank or *talab*[1] while, in fact, both are altogether distinct waterbodies. The mountains and hill around

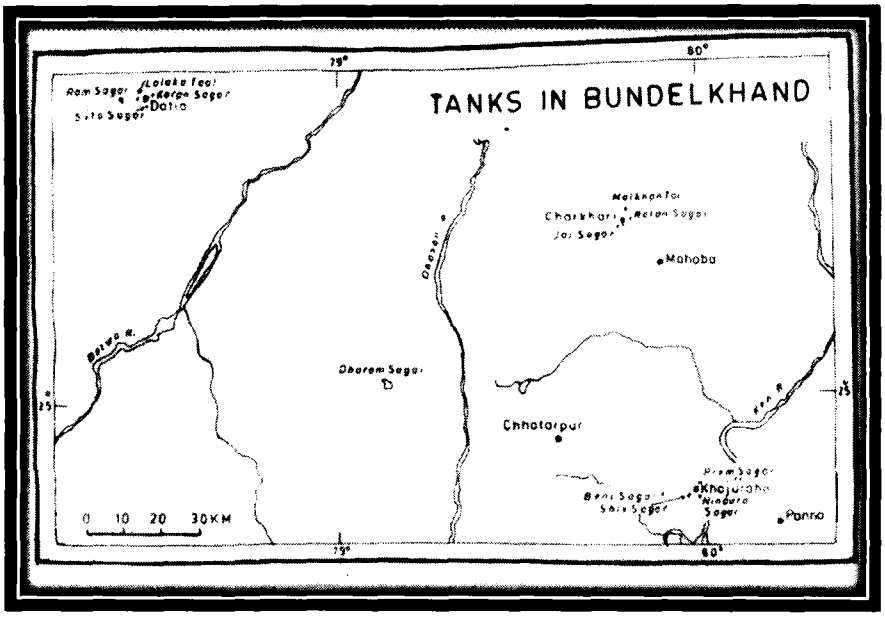
Bundelkhand are sources of major rivers and countless rivulets and *nallahs*. At some places there are deep gorges receiving water from the hills which flow through the passage between the two hills. The blocking of the passage between the two hills by erecting an embankment is generally known as the *bandha* and *bhiti*.[2] Other terms employed are *sagar*[3], *samudra* or *samand* etc. While for tank the terms *tadag*[4] *pushkarni*[5] and *talab* are used. The term is *talab* combination of two words that is *tal* and *aab*. The former means depression in plain while the latter stands for water. Sometimes the site was further excavated to make it more deep and an embankment wall was raised all around. This was known as the *pal* in Rajasthan which confines and preserves water. The space for the inlet was left open through which water comes and collected in the excavated site. But in Bundelkhand generally we do not come across waterbody which contains four side walls. At some places we find such water structures which could be characterized, in the true sense, a tank. The water monuments we come across at Datia and Charkhari could be put in this category. Seeing this limitations in the area of our research we have to classify these water structures into two: some of them in the category of dams while others in the tanks. For this we have to devise a method to put these water structures under two separate headings i.e., dam and tank.

The waterbodies which were created by erecting an embankment between two hills to stop water. This barrier should be made of stones and high in height. In addition, there should be projection towards water to buttress the high wall against the violent flow and force of water. This means the use of binding material which could keep rubbles together. Moreover, this kind of structure generally does not feed any other waterbody or is connected with other water structures. We would put such water monuments in the category of dams which is called *bhiti* in Bundelkhand.

While the second category of water monument is found in depression or in low lying area. Sometimes, the area was excavated to make depression more deep. Ordinarily, the entire excavated area was encircled by stone or mud wall leaving two spaces open one for inlet and other for outlet out of it. These structures were in general parlance styled as the *talab* or *tadag* in Sanskrit. These kind of structures, in true sense, come under the category of tanks or *talabs*.

In this chapter we would discuss the second category of waterbodies. The Chandela and Bundela rulers ruled over Bundelkhand from c. 950 till 1750 developed an extensive system of reservoirs and tanks in their kingdom. This is perceivable from the inscriptions as well as the standing structures.

In a Khajuraho inscription the word *tadag* for tank is used. The Chandela ruler Yasho Varman is praised for excavating a tank (*tadagarnavan*).[6]



Tanks of Datia:

Datia was formerly a part of Orchha state ruled by Maharaja Bir Singh Dev and he had built a fort palace there on the bank of a lake. Later on the *pargana* was given in *jagir* to his son Bhagwan Das in 1626 since then it remained in his family and after the demise of Bir Singh Dev it emerged as an independent state.

The city has seven tanks, namely, Sita Sagar, Karan Sagar, Ram Sagar, Laxman Tal, Lala ka Tal or Bir Sagar. All these waterbodies are connected with each other. The location of these tanks indicates a definite planning. It appears that these waterbodies are dug in descending order. First tank was excavated at comparatively higher plain and then others were excavated in succession at lower sites. All are designed in such a way that a overflow of one tanks fills the tanks located at lower level. The linkage of tanks with each other is known as the *sankal*[7] in Bundelkhand.

Here in Datia at least six tanks are connected with each other show the indepth knowledge of topography of the city and surrounding areas.

Through linking of waterbodies the hydraulic engineers created a web of tanks. This, in fact, is an ingenious method adopted to collect running surface water into tanks. This area receives good rains and the annual average rainfall is between 60 and 70cm. Between 1901 and 1950 the annual rainfall was highest which was 167 percent.[8] Rainfall has been quite sufficient. Therefore, the hydraulic engineers developed waterbodies accordingly. Their main concern was to tap each and every drop of rain water to be used for irrigating fields, drinking and other domestic purposes. There are some tanks which are linked and make a *sankal* (chain).

Karan Sagar (Datia):

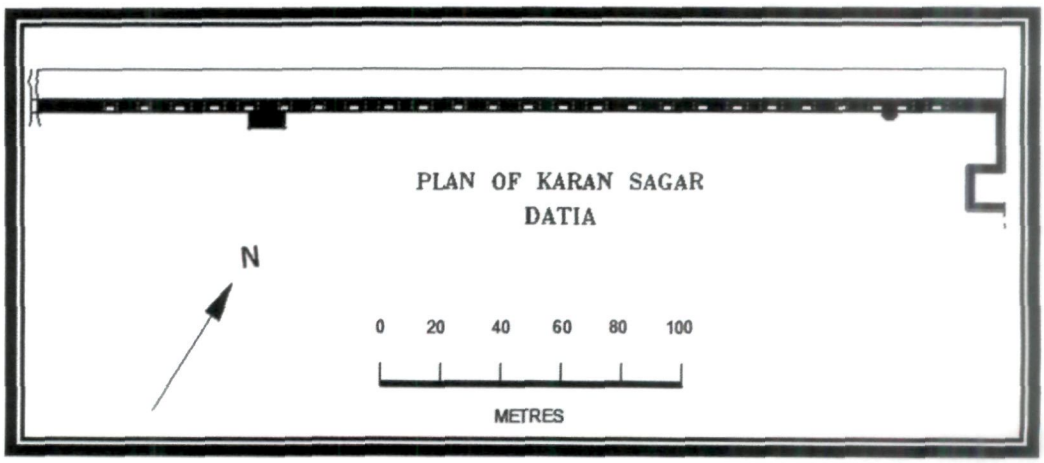
The tank was excavated during the time of Shubhkaran (1656-83) named after him as Karan Sagar.[9] It appears that the hydraulic engineers of Datia selected a natural depression for the waterbody. It may be presumed that they had further excavated the site to enhance its capacity to retain or contain more volume of water. (See Plate No. 9.1) This can be deduced from the extant structure. To stop flow of water an embankment wall was erected. In other words, to bound flow of water and to keep it in the depression, a retaining wall was raised which runs east-west. It was made of rubbles bounded with lime mortar.

At one place stairs were made projecting towards tank. Stone slabs were used in stairs. These are seven exposed stairs which means there are probably more stairs. This hints at its depth. There are small platforms at the end of the seventh stair. It seems that these platforms were erected to break the monotony of the length of the stairs and to provide an additional protection to stairs against the violent thrust of water. These stairs and platforms besides serving as protector of the embankment wall also form beautiful and picturesque *ghat*.

The hydraulic engineers were concerned about its safety hence raised four temples on its body namely Gangaji Mandir, Ganesh Mandir, Narsingh Mandir and the Parshuram Mandir.[10] These structures were erected to put weight on its body.

This is the reason that it is still standing since its birth and facing vagaries of nature which demonstrates the expertise of the engineers. To release surplus water or to protect the waterbody from being washed away two outlets on both of its corners are built. These are square in size.

Karan Sagar Tank with Stairs (Plate No. 9.1)



Water was taken on other side of the tank through a specially made *nallah* or channel known as the *Bhoota Ka Nala*. It is reported that it travels a long way to merge into the River Yamuna. But in fact it irrigates vast agricultural fields located behind the tank.

It expanse is about 23 acres and said to have 10 feet deep[7] but in fact it is difficult to measure its depth because of heavy silt. We have surveyed it extensively and documented in the form of photographs and took measurement. On this basis following ground plan is made:

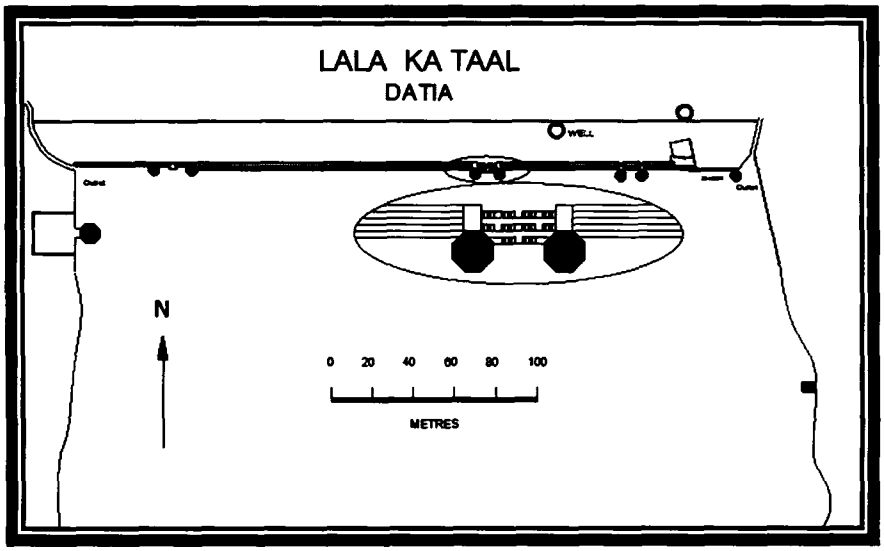
Bir Sagar (Datia):

This waterbody exists in the backside of the fort-palace known as the Satkhanda Mahal or Bir Singh Mahal. The tank was built by Bir Singh Dev at the time when he was the *jagirdar* of Baroni located 8 km away from Datia.[11] It is an enormous lake. Later, on its bank Bir Singh Dev built the palace in 1620-12. The combined impact of both create a scene of fairy dreamland. Now local person call this lake the name of *Lala-ka-taal*.(See Plate No. 9.2)

A Beautiful View of Bir Sagar Lake (Plate No. 9.2)

This site behind the fort was a natural depression and water was collected here during the rainy season. This depression used to look like a lake vast. There is a strong possibility that Bir Sing Dev occasioned to see it while surveying areas of his *jagir*. This vast natural lake fencied the Bundela prince. Two things might have struck in his mined: one, to make it more big lake by carrying out masonry work around it and two, to construct a fort on a hillock on its east.

First idea was translated into reality during the tenure of *jagirdari* of Baroni. Second dream was converted into reality after assuming the power at Orchha. This fort-palace has intimate relationship with this waterbody. In literary flavor we can say that the fort wedded to the *jheel* (lake). The former receives its life (water) from the latter. Their relationships was quite deep and always was quite deep and remained underground. The fort went down to touch the heart of elegant and beautiful lady lake.



After seeing the site Bir Singh Dev issued instructions to his civil engineers to start construction work without delay. Work of embankment wall was initiated immediately. It appears that source of water was located in south and south-west, therefore, the engineers wanted to erect a wall blocking of flow of water further down. Thus they erected a barrier wall running east-west. Its breadth was about 6 mts and further increased by constructing stairs projecting towards water to buttress wall. Three *ghats* were erected for public. On one corner of it there is one *mazar* and a well beside it. There are two outlets on its both ends. On the western corner of the tank a temple on a hillock is standing. The outlet of this direction is located behind the shrine. This outlet is in the forms of bridge containing three channels. The water flows through *nallah* locally knows as the River Asnai.

In addition to this straight barrier, two walls were also raised. One on east direction just below the mound behind the fort. While another is in the west facing the fort. On its corner a temple stands on the extended embankment wall.

The purpose appears to have been to enclose water from three sides so more volume of water could be collected near the main embankment wall. More volume of water means more force of water on the outlet thus water could be drained with force and be taken far away. On the back-side of the embankment or on the corner of the retaining wall there are two wells probably for irrigating surrounding fields. One of the well is still actively used by water Works Department for supplying drinking water to the residents of the area. Behind the retaining wall there is probably an orchard which receives water from this waterbody and produces variety of fruits probably for the members of the royal family.

There is a mosque on the eastern side of the embankment wall which is probably contemporary to that of the lake. This religious structure serves two purposes: one, increasing the weight on the waterbody enhancing the its strength and two, demonstrating that water is for all without any discrimination.

Another religious shrine, temple exists on the side wall of the waterbody. A broad platform was constructed on which the shrine perches. This religious structure is far away from the outlet. In fact it exists on the side wall runs from north to south. It is not known about its date of construction. Since it is in alignment of the waterbody hence it can be presumed that it too belonged to that of waterbody. This structure used to face thrust of the water the most acted as bullwork of the chief wall. Thus engineers encircled the waterbody from three sides. The wall in the eastern direction gets the support of the hillock running parallel to the waterbody. Thus water coming from the southern direction is blocked from three sides.

On the basis of the fieldwork a following ground plan is prepared indicating two safety valves, two religious structures and one *ghat.*

Sita Sagar (Datia):

This tank exists in the vicinity of the Pitambara temple. It is said to have been constructed by Ram Chandra, the ruler of Datia (1707-36) and named after his wife Sita Rani.[13] At present, its expanse is about five acre. The main embankment wall is on the corner of the main city-road. The tank named Sita Sagar is quite large and receives water from the hills located in the east and south.(See Plate No.9.3)

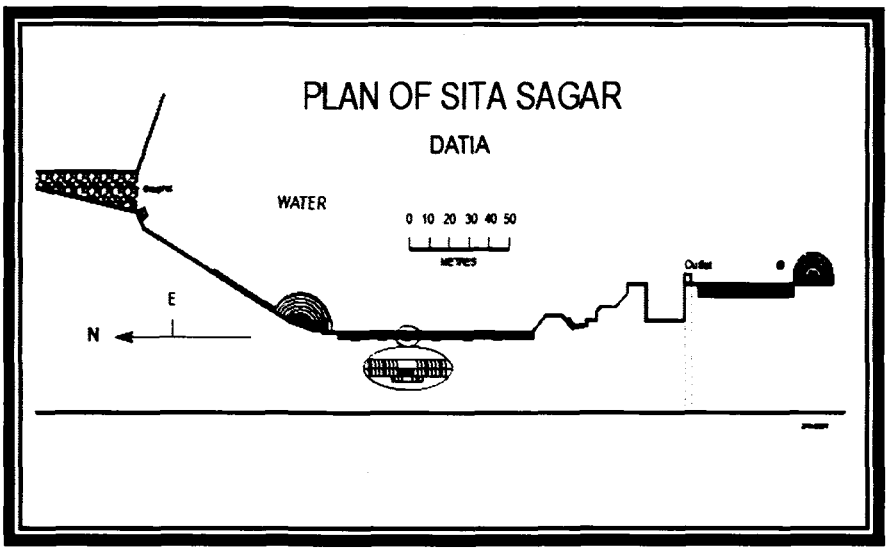
The barrier wall runs from north to south and made of stones obtained from local hills. The wall is not straight but has turns at many places. The northern side wall takes sharp turn to make space for cow (*gaughat*) and then it was further extended towards east.

A View of Sita Sagar Tank (Plate No. 9.3)

On the joint of the turn a semi-circular projection was constructed. This projection is in the form of steps numbering seven. In one side there are lateral stairs to reach the sheet of water. The straight wall in the middle contains stairs towards water. After that there are numerous turns in the wall which looks like serpant. Then there is a shrice from where surplus water flows out of tank. In the corner, adjacent to the outlet, stairs apposite to the waterbody were added. These steps are projecting towards back of the waterbody meant probably for the person who was controlling the water-flow. In the extreme corner or at the end of wall there is a semi-circular projection in the form of stairs numbering seven.

The beauty of the tank lies in numerous projections towards-tanks to divide the force of water. This shows that the hydraulic engineers appear to have paid more attention towards the safety of the waterbody.

Possibly for this reason so many projections and turns were added to the wall. At the same time it also indicates its expanse and capacity to hold enormous volume of water.



It appears that a canal is taken out in the form of outlet located in the south. On the same side there is a well in its corner and water was lifted probably through the *charas* which is evident from the slope.

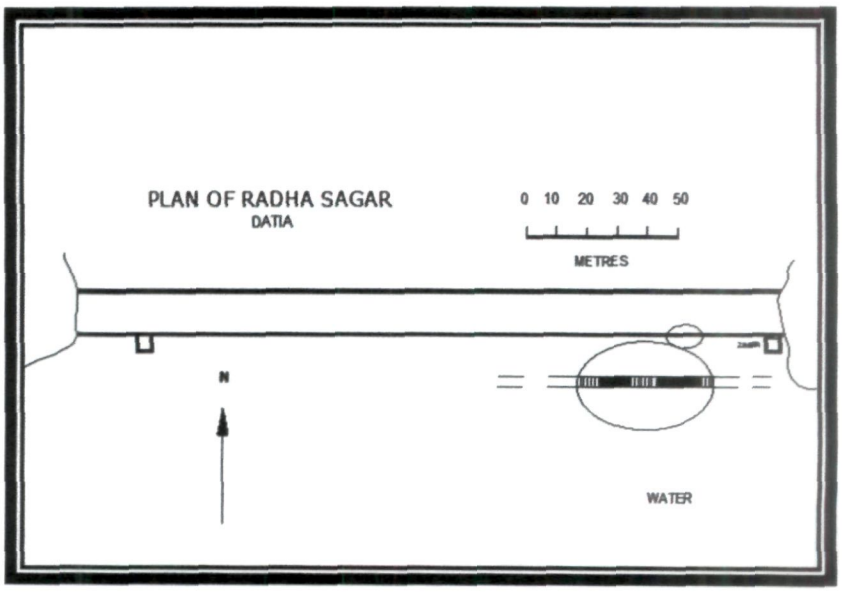
Above description is based on our field work. Following ground plan is prepared:

Radha Sagar (Datia):

This water body excavated by the wife of Raja Ram Chandra (1707-36) named Radha Rani.[14] She was the second member of the royal family who spent money on the construction of the tank and named after her. First waterbody was built by Raja Ram Chandra on behalf of his chief wife (*patrani*) Sita Rani and designated it as Sita Sagar. (See Plate No.9.4). From this one can see the tendency of competition among the members of royal family. The construction of waterbodies for public use- such as tanks, stepwells and wells appears to have been assuming the social and cultural ethos for the rulers and members of the royal family.

This was a healthy competition. It is an enormous tank made of stone and mortar in the south-east of the town. Its source of water lies in the south. The water was flowing between the two hills prior to the eraction of wall at this point.

Stone Slab Stairs of Radha Sagar (Plate No. 9.4)



The hydraulic engineers built a straight barrier wall between the two hillocks thus blocking the flow of water. The embankment wall runs east-west and joins hillocks on both-sides.

The selection of site shows the wisdom of the engineers because it needed a less construction work. The length of the wall is about ---m. while its breadth comes to ……. The front portion of the wall is projected and lateral stairs are provided to go down upto the level of water. In between the stairs a broad platform was built.

Two outlets are located at both the ends of the wall that is, east and west. Its surplus water was carried out to feed some another tank but at present we are not in a position to name that waterbody because of its dilapitated condition. Ground plan of tank is prepared with its outlets.

Ram Sagar Tank (Khoran, Datia):

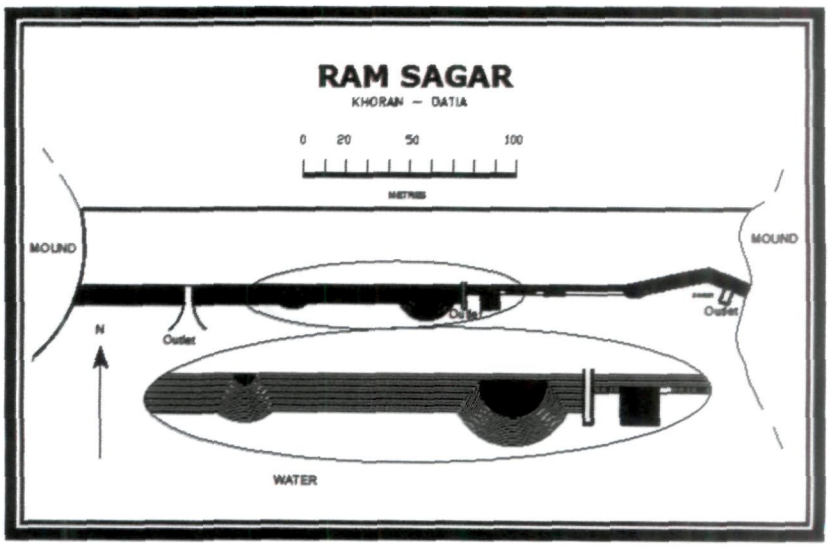
This waterbody is located on the Datia-Baroni road constructed by Raja Ram Chandra.[15] It is located in the deep depression in the middle of the hills and looks like a saucer. The shape of this hydraulic structure is unique. Major part of the embankment wall is straight between the two mounds but at some points it has sharp turns and twists matching with mounds.

Ram Sagar Tank (Plate No. 9.5)

At every turn semi-circular projection at the base was raised to protect the base of the corner. In between there are three such semi-circular projections. The biggest in size is adjacent to the middle outlet. In addition to these, there are two platforms (*chaukis*) projecting towards water.

The main characteristics of this embankment wall is the projection of entire part in the form of stairs which gives it an additional strength against the violent thrust of water. In the corner of the east lateral stairs are provided. Its source of water is located in the south.

Outlet of Ram Sagar (Plate No. 9.6)



There are group of hills located all around. During the *mansoon,* showers fall on these hills and the rain water took the form of rivulets and flow forcefully and accumulated near the embankment wall. (see Plate no. 9.5)

There are three sluices in the barrier wall. (Plate No. 9.6) Two are in both the corners while the third is in the centre. The existence of three outlets hints at capacity of the tank to contain enormous volume of water. The water of this tank was taken to distant places through bricklined canals for irrigating vast agricultural fields. There is a strong belief among the local people that its surplus water merges ultimately in the River Yamuna. In the middle of the lake there is a building (*baithak* or *Kothi*) for pleasure. On the ground floor in the corner of the edifice there is a room with cross windows and fronted by an open pavilion. There is an open pavilion topped with square roof above the room. In front of the pavilion there is an open terrace. This beautiful building in natural setting was meant for the royals. Boats were playing to reach there. Following ground plan is prepared based on our survey.

Group Tanks in Khajuraho:

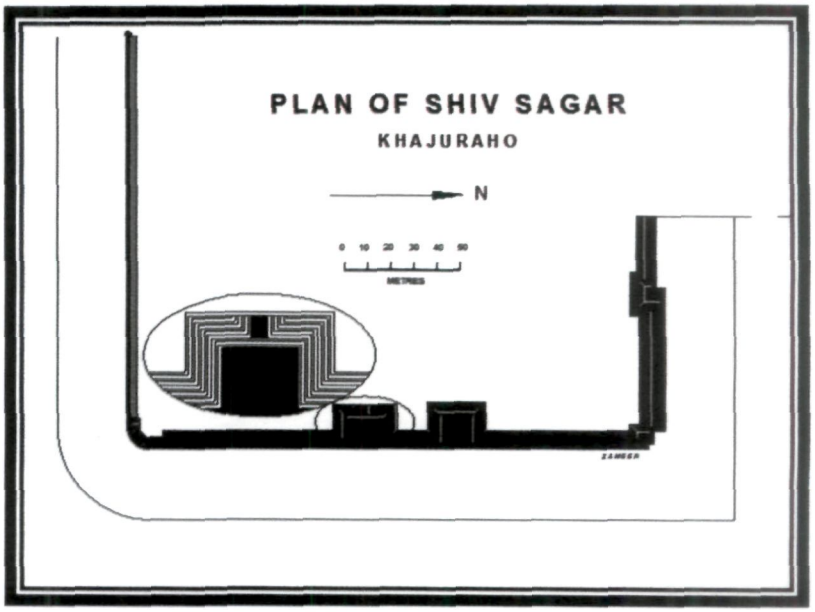
Khajuraho appears have served as the religious and cultural capital of Chandelas. Undoubtedly they brought laureates by constructing temples which are architectural wonder of the world. Consequently, the area became very popular and enlarged in terms of area and population. Large number of people of different professions came and settled here.

Construction activities created employment opportunities for artisan groups and master craftsmen hence they assembled here in large numbers. The Chandela rulers were conscious about the water management. It appears that during the course of development of Khajuraho as religious centre they had excavated tanks to satisfy the needs of local populace. The waterbodies in and around the city are the creations of the Chandela rulers. They were the expert managers of water harvesting system and created a web of waterworks in Bundelkhand. Since they were developing Khajuraho as the religious centre therefore they excavated tanks to make it a water sufficient zone. Efforts were made to harvest or collect every drop of rain water in these water monuments. The large number of lakes certainly raised the water table near to surface which is evident from the existence of about two hundred stepwells and wells. Thus drinking water was made available to quench thrust of large number of people. Following tanks are excavated by the Chandelas:

Shiv Sagar (Khajuraho):

The tank is located near the group of temples in western side. Stone slabs are used in this waterbody and squire in plan. (See Plate No. 9.7)

Shiv Sagar with Stone Stairs (Plate No. 9.7)



This tank was excavated by Yashovarman in V.S. 1057/A.D. 1002. We get information in the inscription of Raja Dhang. It is located adjacent to the Mantgeshwari temple. In earlier times this waterbody was known as the 'Bilwa Tadag' but later on known as the Shiv Sagar. It contains huge amount of water,

which comes from the surrounding hills. Its catchment area is quite vast and spreaded almost in 107-hectare area.

Ninaura Talab (Khajuraho):

The Chandella built a tank in a locality known as Nanaura therefore it assumed the name after the locality.[17] This tank is also known as the Khajuraho Talab. When Ibn Batuta visited this town in A.D. 1335 then he noticed this waterbody and recorded its length as one mile.[18] This means it was an enormous waterbody and used to receive water from a very vast area. This water monument must have played a significant role in raising the water table of the area. This gets confirmation by the existence of large number of stepwells which were used both for drinking as well as irrigation.

Thanera Tank (Khajuraho):

This waterbody is located on the Khajuraho-Mahoba road.[19] Now it falls in the area of Rajnagar therefore it is also called Rajnagar Talab. But formerly it appears to have been part by Khajuraho.

A View of Thanera Taal (Plate No 9.8)

The road side part possesses a stone embankment with steps projecting towards water. Lateral stairs in both sides are provided to reach to the sheet of water

level. Small shrines are erected on its body which enhances weight on it (plate no. 9.8). The source of water lies in the east. Water travels from far away and assembles here in front of the barrier wall. On the basis of survey following ground plan is made:

Devdhar Tank (Khajuraho):

This waterbody was excavated by the Chandelas which is located in the south-west of Khajuraho in the mohalla. Jatkara (ward no.3 of Khajuraho). It is contemporary of the Chaturbhuj temple constructed in the 11^{th} century. It is reported by local people that in former times there were four tanks but three had disappeared in course of time but now remained only one. This is confirmed by our fieldwork. It becomes clear from our study that all these waterbodies were utilized for irrigating agricultural fields. The present use of extant structure Devdhar encourages us to infer above inference.

Beni Sagar (Panna):

This *talab* was excavated by a state official (*Kamdar*) of Panna named Beni Hajuri. He was chivalrous as well as philanthropist. He always tried to do public works. The construction of tank for public benefit was part of his philanthropy (See plate no. 9.9) The waterbody is located adjacent to the residential locality near old Panna Bus stand. The embankment wall runs north-south and water comes from the west and blocked here at this point. The water comes through the inlet located in the south. The surplus water is taken out through the outlet located in the east. Now this tank is full of silt and people dump wastage therefore it has lost its old glory and utility. But one can say with certainty that the role of individuals in the construction of buildings of public utility had been noteworthy besides the state. This shows the strong tradition of building activities both in private as well as state sector.

In addition to above waterbodies or *talabs*, many more were surveyed and documented in the form photographs. One thing emerges that the tank built before the Turkish period or during the time of the Chandelas made without use of mortar. The technique adopted by the Chandela engineers was unique.

They first raised earthen embankment wall with stone dust easily available in mountainous areas. The wall of this material proved very strong and takes the form of a rock. To further buttress the embankment, stones were fixed or set at a particular point or level or degree on both the sides and sometimes only on one side especially the inner side. At some places stones mostly of equal dimensions approximately 2ft.× 1 ft. were arranged in the form of steps. In other words this stone pitching forms a protective wall for the earthen embankment.

View of Beni Sagar (Plate No.9.9)

Another characteristic of the Chandela tanks is that their embankment are usually not straight, but have a sharp convex curvature or sharp turns outwards into the tank somewhere in the middle of the barrier wall. Obviously, at these points the breadth of the embankment increases and where temple or any kind of structure was raised which increases weight on its body. This further enhances the stability of the tank. This is the reason behind the longevity of the Chandela tanks.

Tanks of Charkhari:

The city of charkhari is part of the district Mahoba located at distance of 15 km.. It is in the 25^0 24N``N latitude and $79^0$ 48`` E longitude. The small but extremely beautiful city is known as the city of tanks like Udaipur, the capital city of the

Sisodias known as the city of lakes. The beauty of the tanks of this place lies in its linkage with each other which look like a garland of water flowers. Though all the tanks were excavated in the eighteenth and nineteenth continues but all were designed in such a way to link with each other. The linking of tanks with each other made the place a scenic spot and brought change in environment. In addition water table was raised near to the surface. Following *talabs* were surveyed:

Malkhan Sagar (Charkhari, Mahoba):

This tank was excavated by Malkhan Singh, the ruler of Charkhari in A.D. 1820.[20] It is a stone structure located in the end of the city. An arch shape outlet is located near the *ghat*. Its water was being used for irrigating fields in addition to quench the thrust of people. A temple of Govardhan Nath is on its body (Plate No. 9.10)

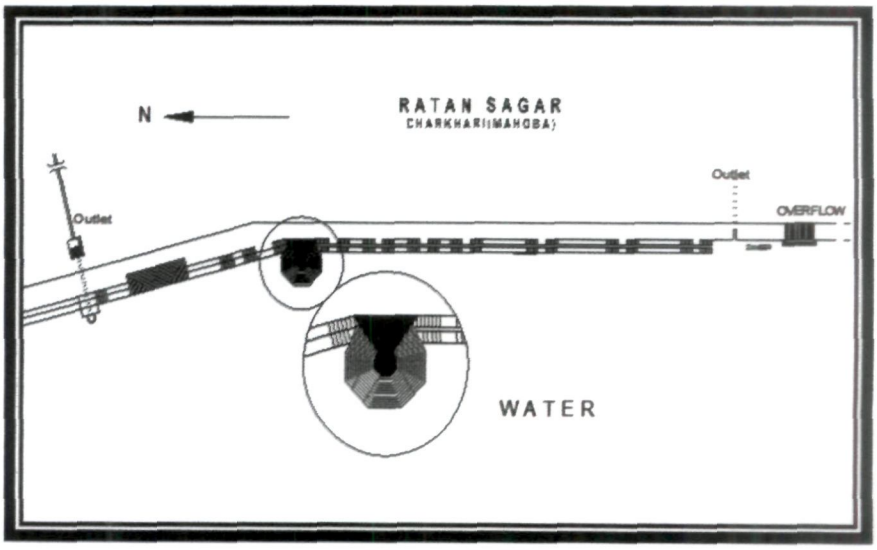
Stairs and Outlet of Malkhan Sagar (Plate No 9.10)

Ratan Sagar (Charkhari):

This waterbody was built by Raja Ratan Singh (1829-60)[21] located on the border of the town. Its embankment runs north-south and water comes from west. Outlet is opened towards east irrigating fields located there. A rectangular tank is built and water falls in the tank.

Then water is taken away through ten sluices in the form of bridges for irrigating fields in the east. Similarly another sluice is cut out at different level for irrigation land located at upperground.

Panoramic View of Ratan Sagar (Plate No. 9.11)



A *nallah* is also cut out for irrigating vast tract of land. On the back of the waterbody (plate no 9.11) there is an outlet of big size which is the main sluice. From it water was drained through channel (*nallah*) from the bottom of the tank.

Here a long and broad platform is raised and water passes under it. There are steps to go down for regulating water supply to irrigate fields locating beck of the lake. An enclosure with a gate on the left side of the waterbody indicates an orchard probably owned by the members of the royal family. A major characteristic of this tank is place left for overflow. It means it was a safety valve which starts functioning automatically whenever water reaches at danger point. This indicates engineering skill.

Jai Sagar (Charkhari):

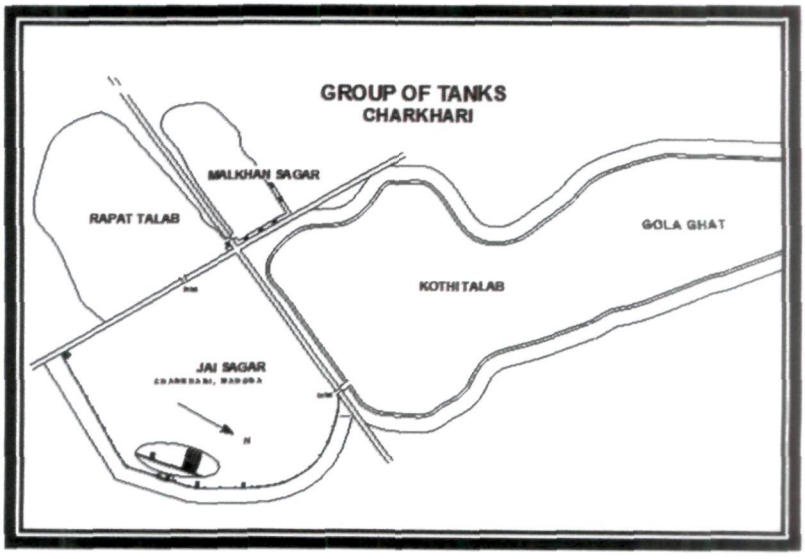
This waterbody was constructed by Jai Singh (1868-980) the ruler of Charkhari.[22] On the left side of the Mahoba-Charkhari road a big lake is located known as the Jai Sagar. Water comes from the west where inlet is made. An embankment wall is runs between south and east and then takes a turn towards north.

Bastions of Embankment Wall of Tank (Plate No. 9.12)

In the same direction there is an outlet to take water in another tank known as the *Kothi-Tal.* This waterbody is so designated or named because of a *Kothi* (building) on its bank. It is extremely beautiful and picturesque. Its embankment wall is not straight but bastions (*burz*) with *Kanguras* of different sizes at short distances make it a unique waterbody.

Some of are very big size. At same places the *chhatris* (canopy) are constructed. In the corner of these bastions there is a big sluice in the form of arches. In the back of it there is probably an orchard which was watered by this tank. Large number of trees are there in the garden.

Kothi-Taal Near Jai Sagar (Plate No. 9.13)



It appears that these bastions were meant for pleasure sitting and enjoying the cool breeze coming through the lake. But this tank certainly created clean and pleasant environment of the area. Other side of the wall runs parallel to the base of hill which provides an additional strength to it.

This wall is plain but contains very few bastions. On the basis of our fieldwork following drawing is prepared which indicates interlinking of all tanks with each other through canal.

Chaupara:

Besides tanks, we come across a waterbody known as the *chupara.* The literal meaning of the term is a square. There is a strong possibility that when originally planned it was square in size thus the waterbody assumed this nomenclature. Secondly, usually these kind of structures are found in the vicinity of the religious shrines hence assuming the sacred status.

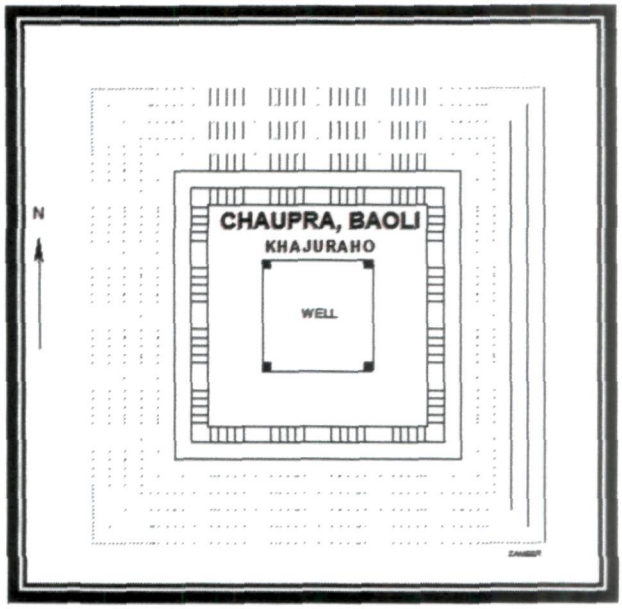
Chaupra in Khajuraho:

There is a waterbody, called *Chaupra* located about 200 yards north- east of the Chitragupta temple at Khajuraho: (plate no. 9.14).

Chaupra With Pillared Pavilion (Plate No. 9.14)

This is a square underground structure. There are flights of steps on each side of the square to go down to the sheet of water. There is a small pavilion in the middle of the structure. The whole structure with pavilion resembles like a sacred Hindu symbol. Chaupra is in Breadth and Length 16.40 X 16.40 and well is 4.0 X 4.0 metre.

If this assumption is correct then it can be said that the water of this small tank was exclusively meant for religious rituals. On the basis of our survey following ground plan is prepared

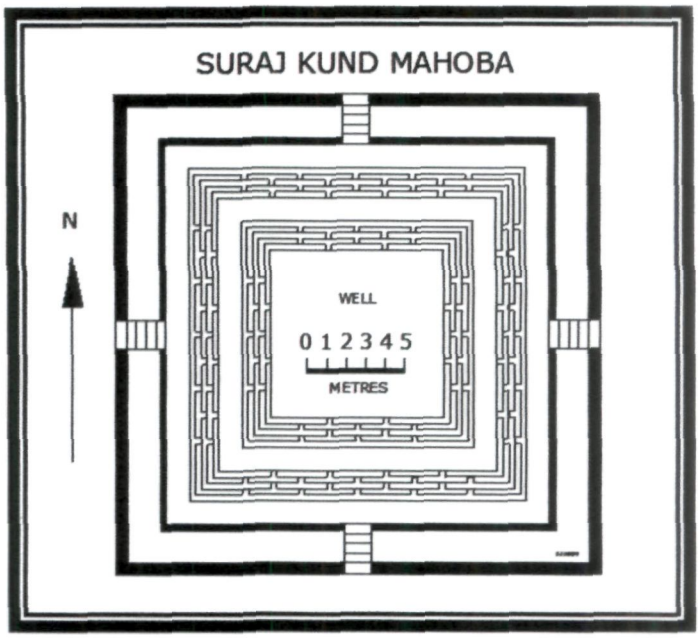


Suraj kund (Mahoba):

It is a type of chaupra, located near Rahila Sagar in Mahoba. It is in squre plan and granite stones are used in slabs. (plate no.9.15)

Chaupra: Suraj Kund (Plate No. 9.15)

Measurement of Suraj Kund: Total length Breadth: 23.72 X 23.40 and Well is 8.6 X 8.6 Metre.

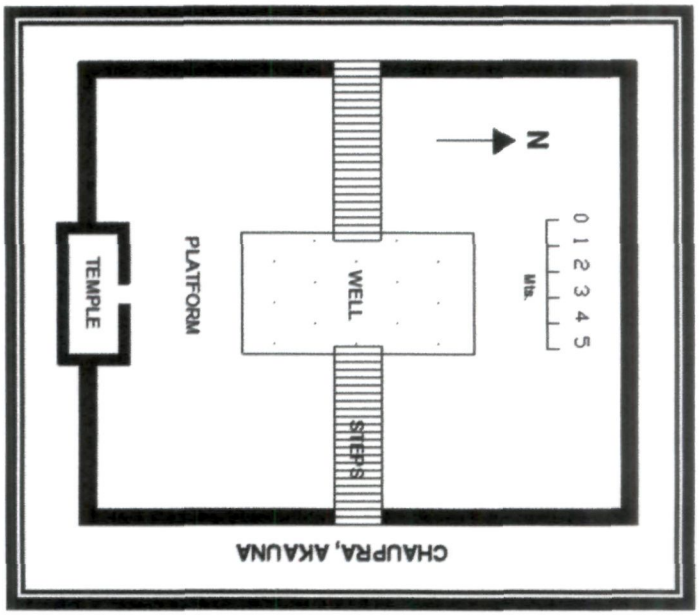


Kund of Akauna (Mahoba):

This chaupra is located at Akauna Village in Mahoba district. It is the time of Chandela period. Kund is square in shaped, stairs are both sides.(plate no. 9.16)

Both Sides Steps In Kund (Plate No. 9.16)

Measurement of Kund: Total Length and Breath, 20.0 X 16.76 and well- 4.70 X 9.0 Metre. Total steps are 17 and 2.40 X .30 mtr. And Width of wall .60 metre.

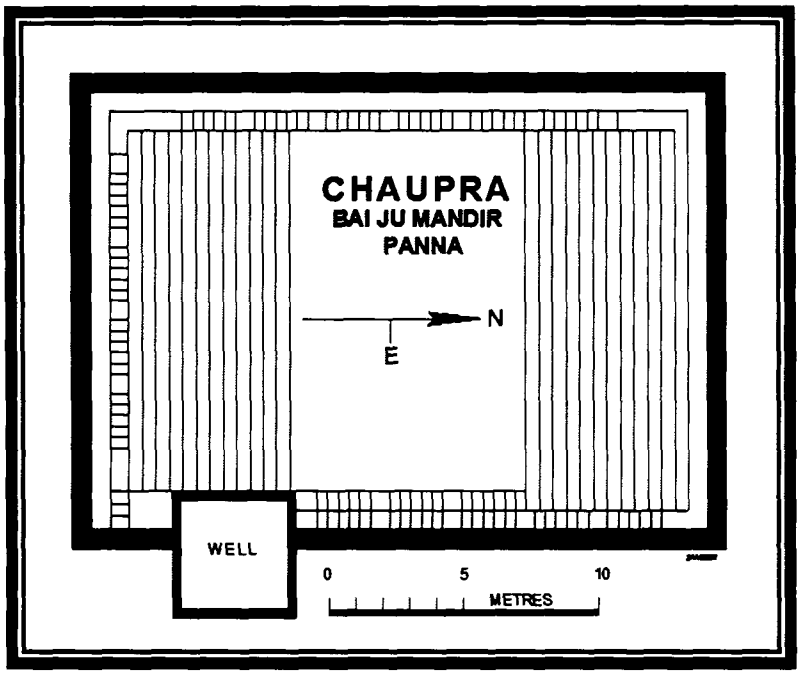


Chuapra (panna):

It is located near Baiju temple in Panna. Chaupra is related the period of later Bundela time (Plate no. 9.17)

Chupra With Square Well (Plate No 9.17)

Measurement of Chaupra: Total Area of Kund is 22.90 X 16.10 and well is 13.30 X 8.80 metre.



Another such *chaupara* is found near the Hanuman temple, Chhardwari near Orchha. It is believed that this temple alongwith the waterbody was constructed by Raja Jhujhar Singh. It is located in the middle of an open field. The level of surrounding area is higher than the small tank thus rain water gushes into it.

It is different from the *chaupara* of Khajuraho. In this structure the flights of steps to reach the sheet of water are provided only in one direction. Second, the pavilion in the centre is not provided as in the case of Khajuraho. But it appears to have associated with the shrine hence its were too is analogous to that of Khajuraho. Following photographs are taken:

References

1. Anupam Mishra, *Aaj Bhi Khare hain Talab*, Delhi, second edition, 1994, pp.39-40; Sunanda Kirtane and Krishna Gandhi, in *Traditional Water Management Systems of India*, et. K.K. Chakravarty, Gyani Lal Badam and Vijay Paranjpe, pp 95-105; Kashi Prasad Tripathi, *Bundelkhand Ke Talabon Evam Jal Prabandhan Ka Itihas*, Delhi; 2011.

2. The term *bhiti* is employed for embankment see, S.K. Mitra, *The Early Rulers of Khajuraho*. Calcutta, 1958, p.180.

3. The term *sagar*, in fact represents an embankment see, 'Ahar Inscriptions of the Time of Paramardideva' in *Corpus Inscription Indicarum* Vol. VII part 3, p. 457.

4. Ch. N.S. Bose, op.cit., p.141.

5. Ibid; S.S. Mitra, op.cit., p.180.

6. *Epigraphia Indica*. I, p.114, vs. 38 as quoted by N.S. Bose, op.cit., p.146.

7. The linking of tanks with each other is known as the *sankal* (chain) in Bundelkhand, Rajasthan, Malwa, Konkan and Railsima in Andhra Pradesh see, Anupam Mishra, *Aaj Bhi Khare hain Talab*, op.cit., pp.53-54.

8. *Madhya Pradesh Gazetteers*-Datia, ed. P.N. Shrivastav. Bhophal, 1977, p.303. Kashi Prasad Tripathi, *Bundelkhand Ke Talabon Evam Jal Prabhandhan Ka Itihas*, Delhi, 2011, p.115-16. Article of Safiya Khan, *A* Study of Tanks Special Refrence Of Charkhari and Datia,, *Juni Khyat,* Rajasthan 2011-2012; Safiya Khan, Purv Upniveshkalin Bundelkhand Me Jal Sanrakshan, *Sandhan,.*- Bhagwan Das Gupta Smiriti Shodh Sansthan, Jhansi (U.P.) 2009.

9. Ibid, p.116.

10. K.P. Tripathi, op.cit., p.116.

11. E.B. Havell, *Indian Architecture –Its Psychology, Structure, and History from The First Muhammadan Invasion to the Present Day,* London, 1913, p.201;

Bhagwan Das Gupta, *Mughalon Ke Antargat Bundelkhand Samajik* , op.cit., p.136.

12. K.P. Tripathi, op.cit., 115.
13. Ibid., p.116.
14. Ibid.
15. Ibid., p.68.
16. Ibid.
17. Ibn Batuta.
18. Ibid p. 69.
19. Ibid, p.127.
20. Ibid.
21. Ibid

CHAPTER – 10

STEPWELLS

STEP-WELLS

The wells with steps are styled as *baori, baoli* and *ber*[1] in local parlance. The term *vapi* is employed in the Sanskrit for the waterbody in Bundelkhand.[2] From this it emerges very clearly that the word step-well incorporates characteristics of two water monuments i.e; well and stepped corridor. But instead of analyzing the English term Step-well if we define the term or term used indigenously for the waterbody than only we can reach on sound conclusion. Generally, *baori* or *baoli* or *ber* are employed for the step-well by the local people. It is generally believed that the term is derived from the Sanskrit word *vapi* or *vapika*.[3] But with some reservations I compel to accept this proposition. The *bawari* or *baoli* has combination of two words namely *bah* or *ari* or *aari* or *aali*. The former means to flow (of water) *aari* means enclosure. In other words , flowing rain water or the rainy water falls on one spot is enclosed or harvested in a stepped corridor and collects in the well. Thus collected water rains the existing water level of the well. Gradually and slowly the rain water percolates in the ground and rejenrates the underground veins or under- currents. So it is a two way process i.e.; using underground water and giving back rainy water thus raising the water-level of the well. Therefore it is double way process: while term for the well is *kunwan*[4] in Bundelkhand. This word does not appear in the *baori*. My intention to quote the term for the well is to show that in the *baori*, The enclosure or stepped corridor is holding dominant position not the well.

However, one thing becomes very clear that the engineers or architects developed a unique water harvesting system through which the could tap underground as well as the rain water. They could also rejanuvate underground water. This was perhaps the reason that water level of the well always remained high. It appears that there had always been a point of debate among the hydraulic and civil engineers about raising a kind of waterbody which could harvest and extract both rain as well as the ground water. The *baori* (step-well) was the consequence of this debate.

I

Inscriptions and official documents, the literary compositions and the gazetteers supplemented by our field reports confirm the existence of countless *baoris* in the territory of Bundelkhand.

The remains of these waterbodies could be seen in the intire[5] region since time immemorial. The area of Bundelkhand consists of dense mountains of Vindhya range and forests . It is a highly, rocky region with a steep land gradient, Therefore rain water flows away quickly and consequently very little is absorbed. This problem was complicated further by the low ground water resource less rainfall and the presence of hard rocks like gnesis and granite. All these factors made Bundelkhand a drought prone area.[6]This natural barrier had thrown open challenge before the rulers specifically and people in general. This challenge was accepted by them which is confirmed by the innumerable extant waterbodies. We get remains of step-wells particularly of the Chandela period Therefore it can be presumed that they were the first who realized this geographical problem and acted accordingly to solved it. They realized that it is directly related to the economic health of their kingdom.

The Chandelas concern for both the rain as well as the ground water harvesting is evident from the innumerable step-wells constructed near the inhabited areas. Besides the rulers, the members of the nobility also took interest in the construction of step-wells. The inscription of the Chandela period furnish valuable *baoli* information about these waterbodies. They give the name of the builders and the location of the edifice built by them. During the reign of Kirti Verman the chief minister and the king's councellor Vatsraja constructed a flight of steps (*ghata*) in A.D. 1098.[7]Apparently, it means that the flight of steps were built on the well. An inscription of A.D. 1171 reports that a baoli was constructed rauta *(raajputr*) Sur Vira during the reign of Parmardi Deva in villege Kortia.[8] In fact this inscription was inscribed to commemorate the construction of the step-well. Three interesting points emerge from the stone document : One, the construction of the waterbody in the famine and two, appearance of the term *baoli*[9] and three, the celebration of construction of the waterbody on the day of its birth meaning by the observation of its birthday with joy. It seems that probably it was an annual affair. The purpose behind it presumably was to convey this message that the digging of wells, the construction of step-wells and tanks or any kind of waterbody is a religious and philanthropic work. The motive behind it was to propogate this idea of construction of waterbodies among people.

Probably the message of the inscription was conveyed and its result came in the form of the erecting of a step-well alongwith other waterbodies such as a tank and a

cistern by a Minister of the Chandela ruler MadanVerman of Mahoba. His name was Gadadhara. These waterbodies were built in village Kendi in the vicinity of Mau or Mhau in the District Jhansi.[10]

Available evidence indicates that every Chandela ruler excavated tank and step-well. MadanVerman who ruled over the region between A.D.1130- 65. He had constructed big tanks in village Madanpur colonised by him.[11]Besides this he excavated large number of step-wells (*ber*) in different parts of his empire. The names of some of the villages could be mentioned where we found these waterbodies namely, Baldev Garh, Ahar, Papwani, Jhinguanwa and Jinagarh.[12]Similarly, an stepwell is located in village Leba in Jhansi.[13]

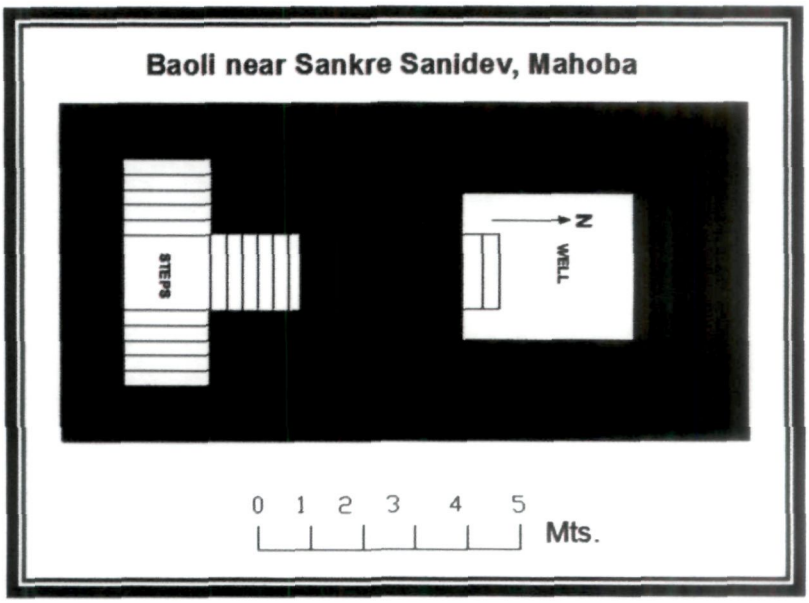
The data collected above is a tip of voluminous records which indicate the construction of large number of step-wells by the Chandela rulers and ministers. Later, their example was faithfully followed by the Bundelas.

Baoli near Madan Sagar: (Mahoba)

This waterbody is located near Madan Sagar in the city of Mahoba. This is known as Sankre Sani Dev ki *baoli* in local people. The structure is the time of Chandela. Granite stones are used in this *baoli.* It has a square well and steps are good condition (Plate no.10.1 and plan no.10.1)

Sankre Sanidev ki Baoli (Plate No. 10.1)

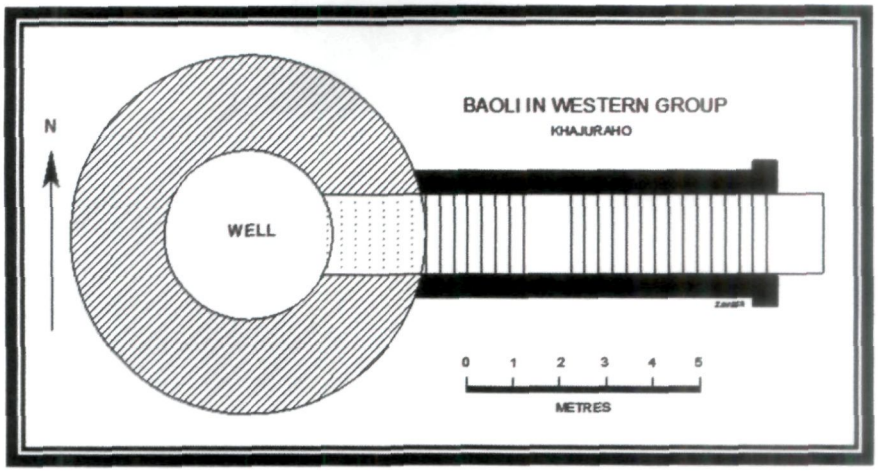
Measurement of *baoli*: Total area of baoli 13.15 X 6.70, diameter of well 3.85 X 3.30, and Stairs height .30 metre.



Baoli in Western Group (Khajuraho):

This baoli is located in compound of western group of temples in Khajuraho. Measurement of *baoli*: Diametre of well 3.60, width of wall of well 2.0 mtr. And total length of *baoli* is 6.25 mtr. (See plate no.10.2 and plan no. 10.2)

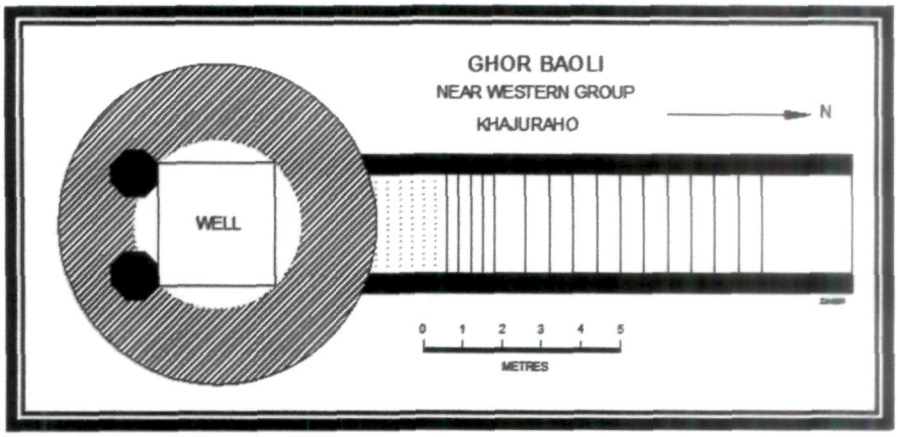
Baoli in Western Group of Temple (Plate No. 10.2)



Ghor Baoli (Khajuraho):

The *baoli* is located near Prem Sagar in Khauraho. The structure of waterbody is later Bundela period. Diametre of well 3.8 mtrs. and width of wall is 1.90 mtrs (See plate no. 10.3 and plan no.10.3). Only lakhauri bricks are used in this waterbody.

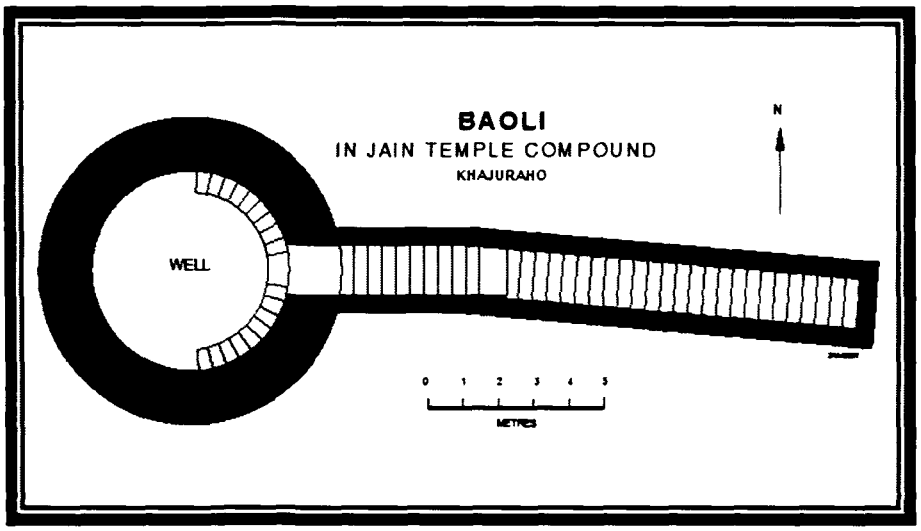
Well of Ghor Baoli (Plate No. 10.3)



Baoli in Jain Temple Compound:

Baoli is in the compound of jain temple group in Khajuraho. Diametre of well is 5.58 mtrs. and total area of *baoli* is 23.4 X 8.5 mtrs. (See plate no. 10.4), Granite stones and *lakhauri* bricks are used in this structures. (See plate no. 10.4)

Baoli of Jain Temple Group (Plate No. 10.4)



The construction of step well was an important part of the developmental activities of the Bundela rulers in their region. Countless waterbodies are found all over Bundelkhand. The inscriptions, official documents, contemporary literary sources and gazetteers furnish information about these edifices. During our fieldwork in major part of the state, we noticed that every village and town has at least one step well or well or a tank. The motives behind the construction of these well – monuments appear to have been manifold: religious, recreation, water supply for drinking and irrigation.[14]

The immediate interest of the Bundela rulers appears to have been to supply of water for elite and ordinary people for drinking as well as for irrigation.[15] The construction activities of these water structures got momentum particularly after shifting of capital at Orchha. We come across large number of well-monuments during our field survey which were built after the shifting of capital at Orchha in 1531. On the basis of our survey, the step wells can be divided into seven categories according to their location: one, connected to shrine;[16] two, located in garden and orchard complex; three, within or at the edge of a village four,[17] on the highway and caravan routes; five in the middle of an agricultural field[18] or on the fringe of inhabited areas and agricultural fields; six, as a part of residential complex of a noble[18] and last, within the fort and royal palace.[20] This categorization is exclusively based on the edifices found in Bundelkhand. The position of the step-wells itself determines the purpose of its construction. They not only supplied water for personal needs but also watering gardens, orchards and agricultural fields. We are here exclusively concerned with the step wells which were used for irrigation and personal use. The well-monument used

for these motives had sluice at its rim or mouth of it to receive the drawn-up water and lead into a trough or big pond (*haud*). From there it was guided through channels (*nali*) running into different directions inside the field or orchard. The priority before the Bundela rulers was to construct waterbodies in and around the newly founded capital Orchha. A large number of such structures are found in the vicinity of Orchha and its surrounding localities. Prominent among them are Dhabe-wali-*baoli*, Gundrai ki-*baoli*, *baoli* near Lotan, *baoli* near Laxmi Mandir, *baoli* in front of Noneju-ki-haveli, Dauji-ki-haveli (*baoli* in front of the *haveli*) and *baoli* in back of the Rai Parveen Mahal. These water monuments were built either by Bir Singh Dev or by his predecessors or successors in the vicinity of the capital city. The city of Orchha itself contains sufficient number of step wells. However, an attempt has been made in this paper to highlight the efforts of the Bundela rulers for making arrangement of water both for drinking as well as irrigating vast agricultural fields for the newly founded city Orchha. Their intention was first to ensure water supply to the residents and create infrastructure for agriculture for the new city.

Dhabe-wali-Baoli (Chandravan near Orchha):

Main Gate and Stairs of Baoli (Plate No. 10.5)

This *baori* is located in the village Chandravan near Orchha. It runs north-west. The location of a step-well determines the functions it performs. This waterbody was constructed in the middle of vast tract of agricultural field therefore it was for watering

the attached land. This is really a magnanimous waterbody in an enclosed compound which has an imposing profile. Outer wall contains an entrance which leads towards the main arched entrance of the *baori.* This opens towards an another arched gate where parapet wall of both sides meets its inner wall.(See plate no. 10.5)

Open Pavilion of Baoli (Plate No. 10.6)

This in fact is a rectangular structure which contains chambers on both sides between the two gates. On the outer wall a niche (*aala*) is provided for light and air. In fact it was a kind of ventilator. A *chhaja* resting on the brackets runs all along the wall. Over the roof an open pavilion was raised which contains nine arched openings on each direction. They are in groups of three facing each other. In between the *chhaja* and the pavilion wall a stone railing runs in all the four sides. Again, thirteen square wholes over the railing are provided in two sides probably to drain away rain water of the roof. Moreover, irregular rectangular wholes in two directions over the lower railing of the pavilion are attached probably performing two functions either draining of rain water or enhancing architectural beauty. Similar kind of square wholes were added which are in between *chhaja* and the window. This makes the complete profile of the arched gate and the opened pavilion (See plate no.10.6) which enhances in its architectural beauty.

This is a three storyed water structure. Major portion of the third arched gate is still in the water. In front of the gate there is an open pavilion raised on the mouth of the well. This is rested on eight pillars on both sides creating seven archhed openings. One side opening is towards well while other side facing the entrance overlooking steps

approaching to the water level.

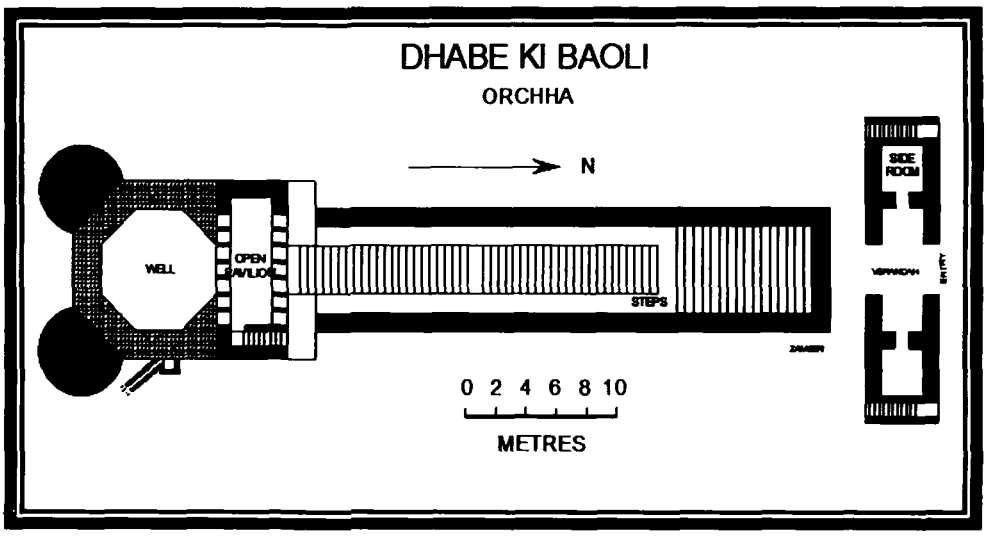
The pavilion and the entrance is joined by a parapet starting from the ground level of the inner side of the entry gate. Two chambers were built on both sides of the pavilion to reach the lower story through the flight of steps. Inside the pavilion, arched gate on each side provided to approach the chamber below. This lower story contains three arched openings on both sides: one facing stairs while other overlooking well. The middle opening contains a *baithak* or pillared balcony overhanging flights of stairs full of water. In fact this is for recreation. Both the corners posses two entrance. To enter in the open chamber parapet on both sides are constructed starting from the *kut* or *deri* upto the entrance. The *kut* or *deri* means broad stair either to provide relief to the descending individual or to break the monotony of the flight of stairs. (plate no. 10.5)

Octagan Well of Dhabe Wali Baoli (Plate No. 10.7)

The stairs are straight and divided into three sections. The size of the stairs, starting from the top is different from other two groups. This section contains eighteen stairs and one *kut* or *deri*. The stairs of this section are bigger in length than other groups. The second parapet wall was raised between the *kut* (of the first section) and the chamber on the second story. This parapet served as the passage to the chamber of second story. Moreover, this wall also buttressed the first parapet. The stairs of first group are of equal size of about 3 meters. The uniformity in size and number of stairs was maintained. Both contains twenty three steps and one *deri*. Thus total stairs and

deri or *kut* of both the groups comes to forty eight (46 stairs + 2 *deri*). The total stairs and *deri* or *kut* of all three sections comes to sixty seven.

Well is on the southern side where a platform is raised for installing the water lifting device.(See Plate no. 10.7) From the corner of well upto the corner of parapet the length of the waterbody comes to 57.65mts. while the breadth is 19metres. The length is higher than the breadth. The vertical well is octagonal in size and diameter is 7.50metres. On the western wall a platform was erected to lift water from the well for irrigating fields located in all the directions except in northern side. To utilize water of this structure for irrigation a rectangle small water tank locally known as *kundi* was built in the east outer corner of the well. Water thus lifted from well was first accumulated in this *kundi* and then taken through the *nali* or canal for irrigating agricultural fields located in the east, west and south. Remains of *nali* are still visible. For irrigating fields of different directions subordinate *nails* were cutout from the main canal. A platform was raised on the southern outer corner of the well probably for movement of an ox. Extant remains of this platform indicate use of Persian wheel for water lifting



Period of Construction:

The grafity found in the inner wall of the chamber determines its period of incarnation. It is written in black ink on the glazed surface of the wall. The year V.S. 1657 with month and date is mentioned. This makes it clear that (this waterbody was

completed prior to the year V.S. 1657/A.D. 1600. From this writing inference can be made that this well-monument was constructed during the time of Raja Madhukar Shah not in the time of Raja Bir Singh Dev as is general public impression.

The ground plan of this step well is prepared based on our fieldwork. In the plan a water tank and a canal (*nali*) is shown. This shows the use of this waterbody for irrigation. A ground plan is given below:

Chhardwari-ki-Baoli (Orchha):

The step well assumes its nomenclature after the village name Chhardwari. The well monument is a part of a big complex. Two motives appear to have been behind the construction of this water structure: religious and utilitarian that is for irrigating vast tract

Gate and roof of Chhardwari ki Baoli (Plate No. 10.8)

.The entrance gate is quite an imposing one. (Plate no.10.8) It possesses a pointed arch resting on the pillars. To enhance beauty of the arched gateway a two pillars were added. A projected *chhaja* resting on the stone brackets, was constructed to give an impressive look to the gate. An open pavilion with three arched openings facing inner gate and two niches covering entire wall of the gate, were built. In between the two gates, two chambers in both sides were built meant for sitting for the guards.

It is a rectangular monument and steps in the descending order start from the second gate. Nine stairs are between second and third gate. From this point main portion of the step well starts.

A solid platform in both sides was raised from the ground level. On both sides of this platform two arched pavilions were built. Which contain eleven openings in each side and thus creating long chambers. (See plate no. 10.9) Probably these *baramda* like chambers were meant for travellers. Three arched entrances were built in the front side. A stone *chhajja* resting on the brackets, in all three directions over the arched openings was built. On both sides are chambers. In front of these arched openings similar kind of arched openings were built which are overlooking well. A *baithak* covered with *chajja* projecting towards well was added. The stairs of uniform size start from the platform to enter into the step well which are fifteen in numbers with one *kut*. Then a set of eleven steps descend further. Width the help of these flight of steps one can reach in front of the arched entrance measuring about one metre.

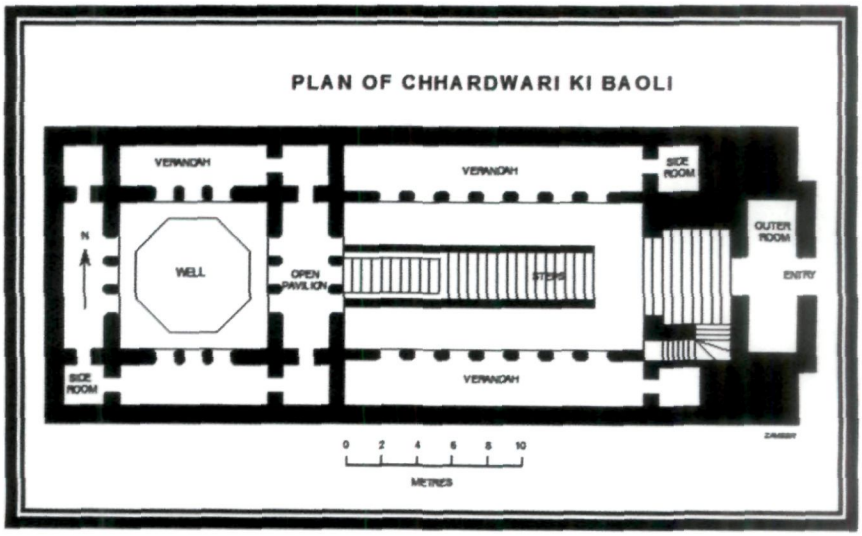
Both Side Verandas and Stairs of Baoli (Plate No. 10.9)

The well is located in the western direction. It is octagonal in size and 6.55 mts. in diameter. Steps are provided to reach into the well. The well monument runs east-west. Entire structure is built of stones. A ground plan of the waterbody is prepared based on our survey. As is said in the beginning that this step well was meant for two functions: for religious rituals and irrigating vast agricultural field. This is a unique

water structure and we do not come across this kind of step well in Bundelkhand. The uniqueness lies in its roof. The hydraulic engineers applied a new technique in this structure. A rectangular parapet was constructed over the well. Similar kind of wall was raised over the remaining part of the structure.

The wall all around the roof was raised which contained numerous holes. Moreover, small *kundis* and *nails* are on the roof. On the right corner, stone slabs were put under the parapet over the well. From this point water was lifted probably by the *charas* and dropped on the roof.

Small Holes and Tanks on the Roof (Plate No. 10.10)



Thus the hydraulic engineers converted entire roof in a distributing tank. Thus the water collected on the roof was passed through the holes in the wall and irrigating a vast tract of agricultural field. (See Plate no. 10.10)

This characteristics distinguishes it from other kind of step wells of India. It was probably built by Pahar Singh (1642-53). The ground plan shows its beauty and charm.

Gundrai-ki-Baoli (Gundrai near Orchha):

The step well is located in village Gundrai about 2 km away from Orchha. The structure runs north-south and made of stones locally available. The sole purpose behind the construction of this step well seems to have been irrigation. It's location makes us to infer this motive behind the construction of this well-monument. It is a very simple structure. Entrance is on the northern direction. Walls on both sides were constructed which join the wall of the *baithak* and arched gateway. (Plate no. 10.11)

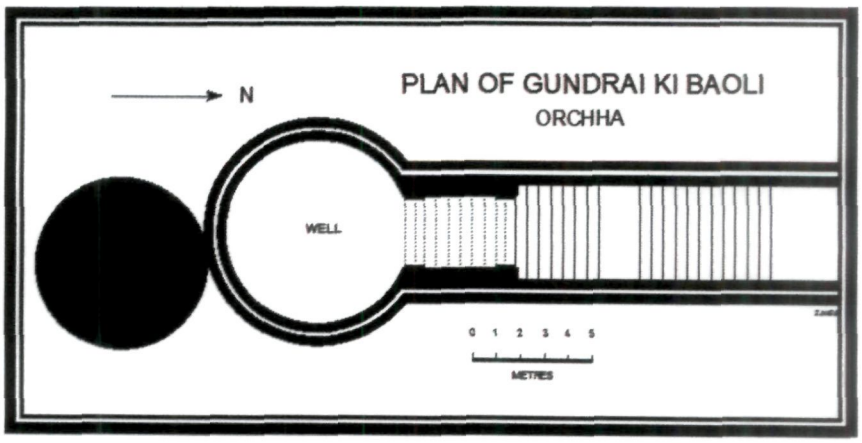
Stairs and Gateway of Gundrai ki Baoli (Plate No. 10.11)

In local parlance the seating place (*baithak*) is known as *dhaba.* The wall of both the directions contains *nali.* The steps start from the entrance punctuated after twelve stairs by *kut* or broad step. Then eight stairs of same size with one *kut* lead to the arched gateway. Then ten steps with no *kut* lead to the well. There is another gate on

the mouth of the well. Over these two arched gates a rectangular *dhaba* or *baithak* was constructed. The well is located on the southern side which is circular and its diameter comes to 7.75mts.

On the backside of the well there is a platform for lifting water with the help of Persian wheel for watering nearby fields. The base of well is octagonal and divided into numerous sections punctuated by a ring. It appears that the first section in base was made of dressed stone slabs then rubbles were used in successive stages. Stone ring approximately at the height of four feet was built which runs all along the wall of the well (Plate no. 10.12).

Dhaba, Kundi and System of Baoli (Plate No. 10.12)



One *nali* could be seen under the *dhaba* (sitting place) and then runs along the parapet for irrigating fields of that direction (Figure 17). The length of the waterbody is 25 mts while the breadth measures 9.55 mts. The ground plan based on our fieldwork shows channels on both sides of walls. A structure for the employment of the Persian-wheel is shown. All these features indicate the use of this water monument exclusively for irrigating vast agricultural field.

Baoli Between Khare's Haveli and the Luxmi Mandir:

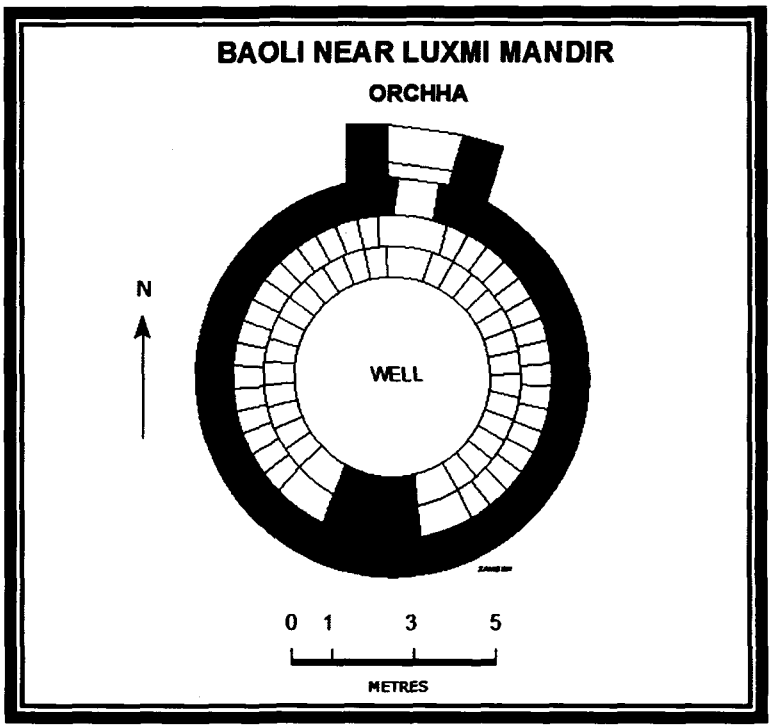
The *baori* between Narain Das Khare,s haveli and the Luxmi Mandir is situated in a deep depression. The former mansion belonged to a state official and the latter structure was constructed by Raja Bir Singh Dev. The site for both the structures was selected because of existing of an enormous lake. The *haveli* and temple are on the ridges facing each other. The entire structure is made of bricks and circular in plan. The upper part possesses stone facing to strengthen fringe of the structure. (Plate No.10.13)

Arched Gateway and Stairs of Baoli (Plate No. 10.13)

The arched entrance of well-monument exists in the north. In the south a brick pillar from the base upto the mouth of well was constructed. The water was lifted from

here and probably used for drinking and irrigation. Lateral stairs start just below the arched entrance.

These stairs with one *kut* go upto the pillar in the south which are sixteen in numbers and the size of each stair is .55X.75 mt. Then stairs of second story start in opposite direction which are fourteen in size of the same size. They start from the south and reach at the water level. The diameter of well is 7.75 mts. Undoubtedly it is a beautiful brick structures whose water was used for god and state officer. Moreover, one may also guess for its use for irrigating fields.



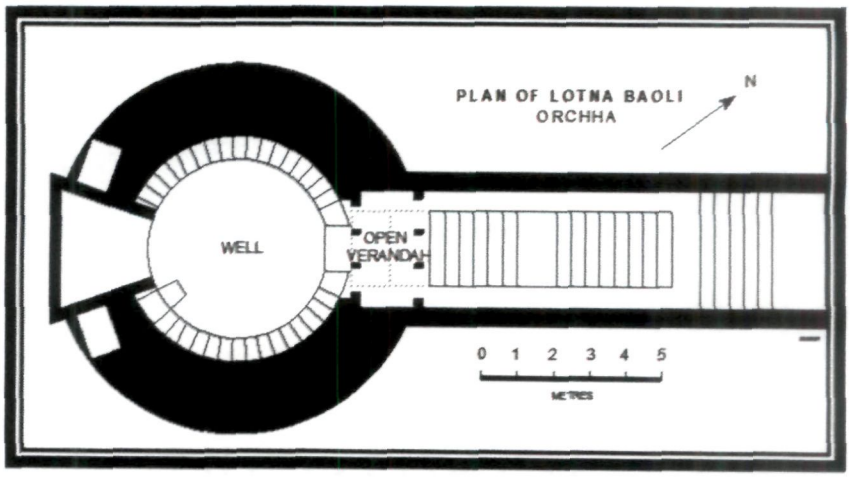
Baoli in front of Noneju-ki-Haveli:

The *baoli* located in the depression infront of the Noneju's *haveli*. It receives both underground spring and rain water. It is still active and irrigating agricultural field adjacent to it. In real terms it can be called as the irrigation step well which receives percolated water and taps under current spring and collects rain water. The excavation of well at this site shows that the water lable was near to the surface.

Lotan ki-Baoli (Latan near Orchha):

A *baori* located in the village Lotan 2 km away from Orchha. The village is on the Orchha and Prithvipur highway and now comes in the *tahsil* of Orchha. For the convenience we assign it nomenclature as the *Lotan ki-baoli.* Now it is the part of the Bird sanctuary. It is strictly utilitarian waterwork without any architectural pretension but one pillared pavilion presumably adds the motive of pleasure. This water structure is made of baked bricks. It runs north-east to south-west. The well of the monument is located in the south-west direction. It is circular in shape and its diameter comes to 6.30mts.The stairs start from the north-east direction and are divided in three sections.

A View of Lotan ki Baoli (Plate No. 10. 14)



In the beginning, there is a pair of broad step (*kut*) and six stairs of uniform size and followed by a broad step of identical size. A parapet wall in both sides was raised from the entry point itself, which meets the arched pavilion (Plate No.10.14).

Another wall was raised which runs parallel to the last broad step of first pair of stairs and joins lower base of the pavilion. In other words it serves as the passage to the pavilion. Then there are two sections of stairs which are small in size. Second pair contains eight steps and one *kut* while the third pair possesses six stairs and two broad steps. These stairs end near the arched gate on which the arched pavilion of the second floor rests. Other side of the arched opening is overlooking well.

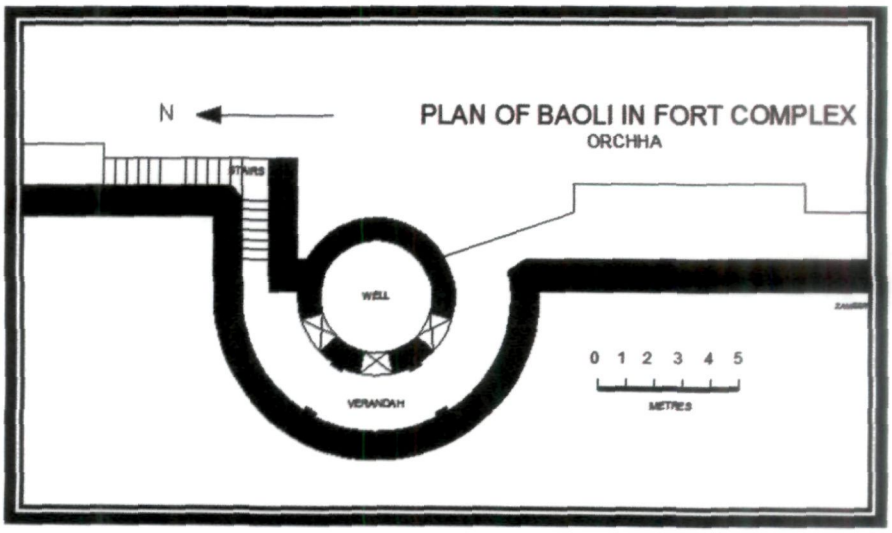
The *dhaba* or *baithak* is on this pavilion. These stairs descend upto the mouth of the well. To go down further the stair descends spirally down to the water along the circular sidewalls of the well. In the backside of the structure there is a parapet which was used to lift water. The total length is 24.75 mts. while breadh comes to 8.70 mts. On this basis the ground plan of the structure is prepared. This *baori* was certainly used for irrigating orchard and garden. Obviously this fruit garden belonged to the state.

Baoli in Fort Complex (Orchha)

Fort Baoli and its Entrance (Plate No. 10.15)

A *baoli* was built in the Orchha fort. The selection of site for the waterbody shows that the engineers had knowledge about the water table of this particular spot. In all there are four wells including step wells. This waterbody was erected within a bastion of the fortification wall located near the main entrance gate. The bastion facing the River Betwa obviously has high water table therefore this water monument was excavated here. The month of the ell is circular in diameter and there are two passages to approach the body. (Plate No. 10.15)

Veranda of Baoli (Plate No.10.16)



It appears that the structure contains two parts: one, well and two, probably resting place of soldiers. This is probably in three stories containing arched openings towards well (Plate no. 10.16). It appears that it was exclusively for the soldiers who were appointed to guard the fort. On the basis of the fieldwork following ground plan is made (ground plan, 10.)

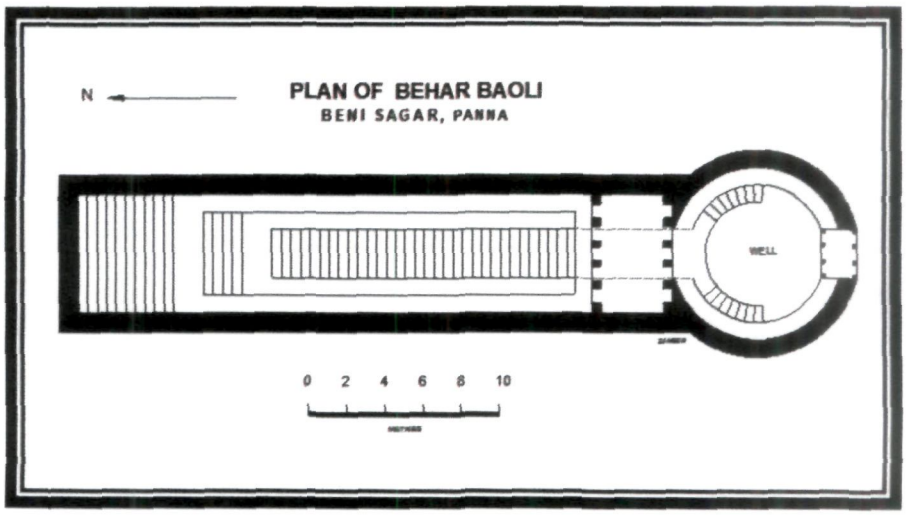
Beni Sagar Baoli (Panna):

This waterbody is located in the city of Panna, a capital of Maharaja Chhatarsal Bundela. This is a three storeyed brick structure. It is also known as the Behar *baoli*. But some people call it the Beni Sagar *baoli* probably because of its location in the vicinity of Beni Sagar. It runs north-south and well is located in the south. Entrance is in the north. The flight of steps leads to the first arched entrance. Then there is another gate on the mouth of the well. There is parapet well on each storey for approaching these (Plate No. 10.17).

Beni Sagar Baoli with Open Pavilion (Plate No. 10.17)

There is a closed pavilion or chamber on the first and second arched entrance which contains three arched openings in both sides. One side opening faces stairs while other is overlooking towards well (Plate No. 10.17 and 10.18). Above it there is a sitting place. It appears it was probably a pleasure structure watering garden located nearby. Ground plan is prepared which is based on our survey (ground plan).

Inner View of Baoli (Plate No. 10.18)



The large scale construction of these waterbodies all around the city and adjoining areas shows that the Bundela rulers were greatly devoted to the public cause and were indeed concerned with the agriculture. Therefore, large number of step-wells were built which could be used for irrigating fields, orchards and gardens. Above study is confined to the capital city Orchha and adjacent areas but it is an index which shows the interest of the Bundela rulers in the irrigation water-works.

Reference:

1. Sunanda Kirtane and Krishna Gandhi, *Traditional Water Management Systems in Bundelkhand*, op. cit., 98.
2. 'Badoli Stone Inscription of The Time of Gopaldeva' and 'Narwar Stone Inscription of The Time of Gopaldeva' in *Corpus Inscriptionum Indicarum*, Vol. VII, part 3, pp. 572-75, 583-88. Besides the term appears in the numerous inscriptions of the Chandela period.
3. Jutta Jain- Neumbaur, *The Stepwells of GujratIn Art-Historical Perspective*, Delhi, 1981, p.1.
4. A *Bijak* on the well constructed in V.S. 1681/A.D..1627/28 by the son named Dharamkari, of the Pradhan Harihar Das during the time of Raja Bir Singh Dev. A copy of the Bijak is compiled in the *Bundelkhand ki Purv Riyaston Mein Patra-Pandulipiyon ka Sarvekshan*, ed. Kamini, Shyamsundar Saunkiya, Shyambihari Shrivastav and Sita Kishor, Kanpur, 1994, pp. 97-8.
5. *Chaumasa* ed. Kapil Tiwari, year 23, Issue 71, p.81. as quoted by Hari Vishnu Awasthi, *Bundelkhand Mein Jal Prabandhan Ki Parampara*, Juni Khyat, no.1, June 2011. B.L. Bhadani & Safiya Khan, Stepwells of Bundelkhand: Irrigational Edifices With Special Reference To Orchha- *Felicitation Volume of S.P. Vyas,* Jodhpur (Rajasthan)
6. Sunanda Kirtane and Krishna Gandhi, *Traditional Water Management,* op. cit., 95.
7. 'Devgarh Rock Inscription of The Time of Kirtiverman' in *Corpus Inscriptionum Indicarum* Vol. VII, part 3, pp. 371-73.
8. 'Ajaigarh Stone Inscription of The Time of Parmardideva', op.cit., pp.436-38.
9. Ibid, pp. 437-38. This kind of celebration we also notice under other dynasty. For this see, 'Badoli Stone Inscription of the Time of Gopaldeva' in ibid ., Vol. II part 3, pp. 572-77.
10. This inscription was first discovered and edited by Lieutinant Wiliam Price and published in *Asiatic Researches* , Vol. XII, pp. 357. Then F. Kielhorn republished it in *Epigraphic Indica* , Vol. I, 1888, pp. 195. Then it is

redeciphered and corrected version is published, ibid, pp. 412-8.

11. *Jhansi District Gazetteer*, p. 353.

12. Hari Vishnu Awasthi, '*Bundelkhand Mein Jal Prabandhan Ki Parampara*', in Juni Khyat , No. 1 (15), A.D. 2011, p.31.

13. *Jhansi District Gazetteer*, p.339.

14. *Baoris* are also called *Ber*. This means wells with steps which were built extensively during the Chandela and Bundela periods. See, Sunanda Kirtane and Krishna Gandhi, *Traditional Water Management Systems in Bundelkhand*, Gyani Lal, Badam and Vijay Paranjpe, New Delhi, 2006, pp.95-105.

15. Sunanda Kirtane and Krishna Gandhi's study is based on fieldwork which confirms that water from these *baoris* was used for drinking needs of humans and animals , and for irrigation, cf., op.cit., 98.

16. There is a stepwell in front of the Ram Raja Temple of Orchha. The temple was constructed by Maharaja Bharti Chand in V.S. 1598/A.D. 1532, See Luxman Singh Gaur, *Orchha ka Itihas,*Tikamgarh ,1975-76. P.26. Generally, we come across stepwells in the temple complex. In Khajuraho a stepwell is still exists in front of temple.

17. The examples of *Gundrai-ki-baoli* and *baoli* near Lotna. are cited. They are known after the villege name. Bisides this examples of innumerable *baoris* can be cited.

18. The *Dhabe-wali-baoli, Gundrai-ki-baoli* are located in middle of the agricultural fields.

19. A step well exists near the *Dauji-ki-kothi* within the fort complex.

20. There is a stepwell in the fort palace of Orchha. It is located little far away from the entrance gate in between the fortwall. Other side of the wall is the River Betwa. Similarly, the forts of Pratapgarh, Sewdha, Udguan, Nauner and Bilhari contained baoris see, Ram Swaroop Dhengula, '*Madhyakalin Bundelkhand ki Paschimi Sima ke Durg-Gardhiyon ki Jal Vyawastha*', in Sandhan-7, ed. Suresh Mishra, Dr. Bhagwan Das Gupta Smiritic Shodhv Sansthan, Jhansi. 2009, pp. 36-41.

Conclusion

CONCLUSION

In the foregoing study an attempt has been made to trace the tradition of the building construction in Bundelkhand established by the Chandelas and followed by the Bundelas. Though the Chandelas earned a great reputation in the political as well as in the cultural field in early medieval India but their beginning was quite humble. They started their political career in about A.D. 830 under the suzerainty of the Pratiharas, and possessed small principality situated around Khajuraho. The area was under the control of Nanuka, the first ancestor of the clan. Later on his successors, each in his turn, enlarged the ancestral territory. It was during the time of Yasho Varman son of Harsh Deva the territorial expansion took place the most and his military actions established the power of the Chandela state on a firm footing so henceforth it was virtually independent.

After conquering a vast territories Yasho Varman consolidated his political power. These victories brought enormous wealth with which he embarked upon to initiate new victories in the field of the construction sector. It is believed that the buildings in Khajuraho were constructed during his time. Thus by erecting the Laxman temple he laid down the tradition of the construction of buildings in the region.

His son Dhanga (c. 950-1008) went ahead in both the fields, that is, in conquering new territories and in the construction sector. He started the work of beautifying Khajuraho. The temples Visvanath and Parsvanath among others came into existence during his reign. Besides, the most imposing temples were built by him namely, the Kandariya, the Devi Jagdamba, Chitragupta, the Vamana and others.

The Chandela rule went on under numerous rulers. Prominent among them were Vidhyadhar (c.1017-1029), Vijayapala (c. 1030-1050), Kirti Varman (c.1060-1100), Madan Varman (c.1129-1167) and Yasho Varman. Even after, the rule of the Chandela dynasty continued till 1545 when its last ruler was killed at Kalinjar by Sher Shah.

Each ruler contributed enormously in the field of the construction sector. During their long years of rule forts, palaces, dams, tanks and stepwells were constructed. They mainly concentrated on three kinds of edifices : one, temples two, forts and the third, water harvesting structures. Large number of religious shrines came into existence during their reign at Khajuraho, Mahoba, Kalinjar, Ajaigarh and many others. The fortresses were built at strategic points which guaranteed peace in rural as well as in urban areas.

Prominent among them are Barigarh, Kalinjara, Ajaigarh, Maniyagarh, Marpha, Maudha, Garha and Mahijar.

This part of the kingdom was much less fertile than the region between the Ganges and the Jamuna. In accordance with the tradition of the Chandela rulers supervised the irrigation of their and water supply to the urban population. Hence wells, tanks and artificial lakes were built of various sizes. All sorts of tanks were dug out and constructed by kings, queens and nobles. Through these means the dependence of the peasants entirely on rainfall was reduced.

The Bundelas emerged and established their political dominance over Garh Kundar in 1257 and remained there uptil 1531. Then they shifted to Orchha and established capital there by Rudra Pratap in the same year. In fact, the emergence coincides with the foundation of the capital at Orchha. Their territorial base was enlarged under Bharati Chand and Madhukar Shah (1554-92). He was clever and diplomatic, therefore accepted the Mughal suzerainty in 1577. This policy was continued under his son Ram Shah.

The cordiality with the Mughals proved beneficial to the Bundela state specially to the newly established capital Orchha. The peace prevailed in the state and the work of building construction was progressed at fast pace. Large number of edifices such as the forts, palaces, temples came into existence. The gardens were laid out in different parts of the capital town Orchha by Madhukar Shah. A new structure – the funeral memorial (*chhatri*) was erected at Orchha by him.

The real revolution in the field of construction sector came with the accession of Bir Singh Dev at Orchha in 1605. The throne of Orchha came in his possession as a result of his friendship with the Mughal emperor Jahangir. The accession of Jahangir in 1605 completely changed the fortunes of the Bundela chief. He was given entire Bundelkhand. The attending of the investiture ceremony of Bir Singh dev by Jahangir not only glarified the occasion but enhanced the political stature and prestige of the Bundela chief.

It is said that the foundation of the Jahangir Mahal was laid down on the occasion of the visit of the Mughal emperor. The initiation in the construction sector further enlarged the work and progressed at fast track. He was a prolific and the greatest builder in the rank of the Bundela rulers. He is said to have started construction of 52 buildings

on the occasion of his 52nd birthday. He erected both religious as well as secular edifices which included forts, palaces, gardens, temples, cenotaph and the water harvesting structures such as dams, tanks, stepwells and wells. After his demise, his grandson Sujan Singh (1653-72) constructed a tank known as the Sujan Sagar in village Arjar. Besides, his queen Brijkumari laid out a garden spreaded in 10 kms. Apart from the cenotaphs no construction work of significance was carried out. After that the building activities were started at Panna and surrounding areas under the leadership of Maharaja Chhatrasal.

Variety of edifices were erected by both the Chandelas and the Bundelas in the areas under their control. The objective of my study has been to trace and document the efforts of the rulers of both the dynasties in the area of building construction and water harvesting and conservation of rain and sub-soil water as well as to make comparison between the Chandela and the buildings built during the time of the Bundelas.

Besides adorning the capital and other royal seats with a variety of monuments and water structures the Chandelas built edifices in rural areas too. We can conclude without any hesitation that the number of edifices left by the Chandelas to the posterity are larger than the monuments left by the Bundelas.

The buildings of the Chandelas belonged to the pre-Turkish period therefore the building technology too was associated to the contemporary period. Through the construction of varieties of buildings the indigenous building and hydraulic technology developed stage by stage. As experience, in the construction field expanded, the buildings too got more refinement. During this period the buildings were constructed on the 'column and beam' principal. In this form beams of stone were supported horizontally by two vertical columns. Another device is employed to remove the deficiency of this form of construction known as the corbel. The temples of the Chandela period were built mostly on the column and beam device. Though I have hinted at the method or form of the construction of the buildings in the Chandela period but it is beyond the purview of my thesis.

The changes in the building construction came with the advent of the Turks in India. New forms arch and vault/dome were introduced in construction. Lime mortar as a cementing material was introduced in building sector. The use of bricks in the construction was increased manyfold and started to match construction in stone.

Intimate and cordial relations with the Mughals encouraged the Bundelas to adopt the new forms of building construction. The arch forms the dominant feature of the Bundela architecture. Lime mortar as a cementing material was a new introduction.

In the field of water harvesting, conservation and management both the Chandelas and the Bundelas played an outstanding role. This was necessitated by the hilly and rocky geographical conditions. The rulers of both the dynasties gave a befitting answer to the geography by creating variety of water bodies such as dams, tanks, stepwells and wells. The former built innumerable water monuments. Prominent among them are Kirat Sagar, Rahila Sagar, Vijay Sagar, Madan Sagar and Kalyan Sagar at Mahoba.

Four points emerge from the study of these Chandela water bodies one, massive earthen embankment two, stone pitching of the embankment mostly on both the sides and sometimes only on the inner side. Three, use of equal dimensions stones i.e., 2 ft x 2 ft x 1 ft and last, higher breadth than height.

Our field study shows that these water structures are still intact only stone pitching is dislocated but the earthen embankment is standing like rock. On the basis of my study a tentative conclusion may be drawn. Admixing of stone dust and gypsum perhaps made it possible. To reach on sound conclusion a detailed technical study of these structures is necessary so as to understand the reasons for the longitivity of these water monuments.

The construction of hydraulic works continued under the Bundelas. The dams and tanks built during this period were larger in size particularly in height. It is evident that the size of the dam increased as the experience of the engineers enlarged.

Two distinct technical advances were made in the long turn over the Chandela structures : one, widespread use of lime mortar, two, replacement of rubble laterite material by the dressed stones. However, the Bundela hydraulic structures are advanced technologically but far behind in numerical strength than the Chandelas.

Moreover, the Bundelas were far ahead of the Chandelas in the field gardens. They laid out well planned gardens with a series of fountains connected with water tank. Another buildings which made the panorama of the capital magnificent were the *havelis* or the *kothis* of the nobles. These brick and stone structures had no counterpart in the Chandela period. However, these buildings made Bundelkhand to shine in the construction sector.

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